



## **GIE written comments about the 3<sup>rd</sup> CEER workshop on Target Model held in London on 11 April 2011**

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### **Introduction**

The 3rd workshop on the Target Model for gas organised by CEER in London on 11 April 2011 has been the opportunity for CEER to present his proposal for a Target Model for gas (“MECO-S” model) – which was presented in more details during a webinar on 7 April –, as well as to have several interesting presentations on specific aspects of the Target Model, particularly on the merger of market zones and possible options to connect markets. CEER announced that further feedback is to be provided in a 2-weeks period following the London workshop.

GIE welcomes the opportunity to provide more detailed comments on the material presented and on the main discussion subjects regarding the Target Model. GIE appreciates improvements in the process to deliver a Target Model in line with the requirements of the conclusions of Madrid Forum XIX.<sup>1</sup> In particular the provision of presentations in advance is very valuable. However we would have appreciated more discussion on the elements of the “MECO-S” model during the workshop.

This document provides initial feedback to the material presented at the London workshop, which should be considered in addition to “GIE’s response to CEER’s Call for Evidence” of 14 January 2011, to the “GIE feedback on CEER workshop #1 on Target Model held on 22 February 2011” of 8 March 2011, and to the presentation “GIE views on Gas Target Model – Focus on storage” delivered at the 11 April workshop.

### **Who is GIE?**

Gas Infrastructure Europe (GIE) is an association representing the sole interest of the infrastructure industry in the natural gas business such as Transmission System Operators, Storage System Operators and LNG Terminal Operators. GIE has currently 66 members in 26 European countries.

One of the objectives of GIE is to voice the views of its members vis-à-vis the European Commission, the regulators and other stakeholders. Its mission is to actively contribute to the construction of a single, sustainable and competitive gas market in Europe underpinned by a stable and predictable regulatory framework as well as by a sound investment climate.

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<sup>1</sup> Point 6 of the conclusions of Madrid Forum XIX states : “*The Forum encourages regulators to continue the work in ACER and with the appropriate involvement and consultation of Member States and stakeholders to further improve the transparency of the process and to present to the next Forum the results of the Gas Target Model process.*”



## **General considerations regarding the Target Model – Feedback from 3rd workshop in London**

### **1. Problem-setting, current situation and proposed measures**

The overarching goal of the Target Model is to contribute to the completion of the Internal Gas Market. This Internal Gas Market should be characterised by strong and liquid trading markets, interconnected by huge transportation capacities, where the price spread between markets is not higher than the cost of transport between those markets, provided no physical congestion occurs. In such case, interconnection infrastructure is used most efficiently. The LECG study and the MECO-S model both aim at improving these two aspects : “enable markets” and “connect markets”. In the following parts of this document, we assume that the goal is achieved if these two criteria are met.<sup>2</sup>

According to CEER, the current situation is characterised by functioning markets in only a few countries, and by contractual congestion between markets; therefore markets are but poorly integrated. Regarding North-West Europe at least, this statement is not correct. The NBP, Zeebrugge, TTF, PEG-Nord, NCG and Gaspool markets show strong and increasing liquidity, trading volumes, churn factor and number of participants. Moreover the day-ahead price spread between these markets is lower than the cost of capacity most of the time.<sup>3</sup> This shows that the “Third Energy Package” development process can deliver market integration in North-West Europe.

Other regions in Europe show similar developments, fostered by increasing competition between supply sources. With the progressive introduction of Entry/Exit systems and Virtual Trading Points all over Europe according to the Third Energy Package requirements and developments<sup>4</sup>, a significant improvement of the situation in other regions in Europe can be expected.

The current development process of CAM and CMP rules at European level is likely to bring additional improvements regarding allocation and use of cross-border interconnection capacity – in particular contractual congestion should be removed by adequate CMP measures. Therefore the “Third Energy Package” development process is expected to contribute significantly to the

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<sup>2</sup> In GIE’s feedback on the Bonn workshop, we stated : “*Regarding the first problem, clear, understandable and preferably numerical criteria should be defined first to assess whether a market is ‘functioning’, ‘market-capable’ or ‘liquid’.*” There is currently no common understanding on which numerical criteria should be used to assess the liquidity of a gas market. Possible indicators are, without limitation or preference : trading volume, physical volume, churn factor, number of market participants, HHI and market depth (futures market). Regarding market interconnection, day-ahead price spread between markets with respect to transport tariff is recognised as a valid indicator.

<sup>3</sup> See also p.6 of the CEER presentation “Problems in the European gas market and high level overview of options”, Gas Target Model workshop, London, 11 April 2011. On the period between 1 July and 30 September 2010, the only price disconnection between NBP and the continent was during the Interconnector maintenance.

<sup>4</sup> Alinea 4 of article 13(1) of Regulation 715/2009/EC states that : “*Tariffs for network users shall be non-discriminatory and set separately for every entry point into or exit point out of the transmission system. [...] By 3 September 2011, the Member States shall ensure that, after a transitional period, network charges shall not be calculated on the basis of contract paths.*”

Recital 19 is more explicit on the capacity booking : “*To enhance competition through liquid wholesale markets for gas, it is vital that gas can be traded independently of its location in the system. The only way to do this is to give network users the freedom to book entry and exit capacity independently, thereby creating gas transport through zones instead of along contractual paths. [...]*”

Virtual Trading Points are not dealt with in the Gas Regulation nor in the Gas Directive.



completion of the Internal Gas Market.<sup>5</sup> Therefore alternative measures like merger of market zones or market coupling would only bring additional benefits if the cost of those measures is relatively low, depending on local or regional circumstances.

Contrary to electricity, gas has to be transported on huge distances between production and consumption areas, usually crossing several borders. These cross-border flows need appropriate commodity and capacity contractual arrangements in order to ensure the secure supply of the consumption markets. The Target Model has to recognise the existence of the existing arrangements and not put existing supply into question. It should design appropriate measures for the future arrangements in order that the secure supply of the European markets can continue, while delivering appropriate investment signals for the infrastructure operators to develop capacity according to market needs.

## **2. Organisation of the gas commodity market**

The gas commodity market is characterised by the dominance of continuous OTC trading. Trading includes typically long-term supply arrangements with producers, yearly portfolio balancing, short-term optimisation, daily arbitrage, and within-day balancing. Few gas trading currently occur on exchanges. In particular it should be noted that the wholesale market and the balancing market should not necessarily be separated: balancing markets are the natural continuation of the wholesale market closer to the gas delivery time.

If new market arrangements are envisaged – i.e. day-ahead implicit auctions, which imply auctions for gas –, they should be consistent with the organisation of the commodity market. In particular many interconnection points carry base flows necessary to bring gas from the supplying countries to the consuming countries. A broad acceptance of new market arrangements is needed by the all involved stakeholders before they can be implemented.<sup>6</sup>

As is shown in section 1, market integration is already achieved with the present access rules in some regions of Europe. Therefore new commodity market arrangements are not a necessary condition to achieve functioning markets.

## **3. Long-term vs short-term perspective**

GIE welcomes the recognition that long-term aspects of the gas market have to be integrated in the Target Model. The right balance between long-term interests of gas supply and the short-term interest to couple markets should be looked for: long-term contracts should not jeopardise the efficient use of capacity on the short term, while easy access short-term capacity should not give disincentives to book long-term capacity and ensure security of supply of the consumption markets.

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<sup>5</sup> In addition, the progressive harmonisation of market access rules according to the Framework Guidelines / Network Codes processes will reduce transaction costs – and therefore improve access – for network users.

<sup>6</sup> In electricity, implicit auctions for day-ahead electricity ensures the price convergence on the day-ahead markets. Forward markets and within-day markets are not coupled. It happens that the actual flows are different from the day-ahead flows calculated by the market coupling process, leading to the actual marginal electricity prices to be different from the cleared prices on the day-ahead market. One proposal to solve this inconsistency is to introduce within-day market coupling, which would imply very resource-consuming processes for TSOs, exchanges and market participants – i.e. auctions would be held nearly continuously 24 h a day and 7 days a week, for quite small quantities of electricity per deal, leading to high transaction costs.



Therefore the Target Model should design balanced measures between the long-term and short-term interests, taking into account a balanced share of risks along the entire gas value chain.

Cross-border gas infrastructure represents a significant part of the total gas infrastructure in Europe. It is important that investments in cross-border gas infrastructure are underpinned by long-term capacity contracts. On the shorter term, rules for CAM and CMP – as well as secondary capacity markets – should ensure that the capacity can be fully utilised when needed by the market. If auctions are introduced, the reserve price for long-term and short-term auctions should be defined appropriately in order to achieve the right balance between long-term and short-term capacity bookings, while ensuring cost recovery for the infrastructure operators.

#### **4. Merger of market zones**

The size of the market does not play a significant role regarding the functioning of the market. A functioning market is rather characterised by effective competition. In addition small well-interconnected markets behave like one big market, if there is enough capacity between those markets to ensure that the price difference between markets is lower than the transmission tariffs between those markets.

The merger of small markets into a bigger market improves the functioning of the market when it facilitates competition between gas sources across the bigger market. Therefore the merger of markets should primarily be envisaged where such merger allows more gas sources to compete than in the previously smaller markets.

But larger market areas in entry/exit regimes require more infrastructures because gas should be able to move from any entry point to any exit point. Therefore merging market areas will likely require significant investments within the bigger market area, resulting in higher transmission charges, ultimately born by end-users. As these investments are inside a market zone, an open season process will not reveal the actual *value* for the market of these investments. Consequently there is a risk of over-investment for the transmission network operators, which would lead to unnecessary increase of end-user charges.

The trade-off between small and big market zones is difficult to assess because the costs are on the TSO side while the benefits are on the end-users side through increased competition. The optimal size of a market area should be determined by all concerned parties using a sound cost/benefit analysis of possible alternatives.

The merger of market zones across borders is a difficult process: beside agreements between the involved TSOs, it requires extensive co-ordination and co-operation of the involved NRAs and Member States to approximate the relevant aspects of the legal and regulatory context. Indeed, the merger of market zones requires an extensive harmonisation of access conditions across borders, the alignment of some contractual conditions, consistency of legal and regulatory decisions. Albeit such process is in the spirit of the Third Package, no framework is foreseen for its implementation.



## 5. Trading Region model

The Trading Region model has been presented in the London workshop as an intermediary step towards the full merger of market zones, while it is an integral part of the MECO-S model. Some elements of the Trading Region model need further refinements: i.e. the split between TSO and DSO functions, the 2-contract model, the amount of cross-border capacity allocated by implicit auctions, the potential disconnection between the day-ahead wholesale market and the balancing markets, the positioning of storage on the distribution or transportation side... In particular storage is a competitive activity that fosters wholesale markets through increased competition with other supply sources, by pipeline or LNG. It should be positioned in the market where it can best contribute to the functioning of the Internal Gas Market.

At first sight the Trading Region model corresponds to the current market organisation in some countries, but could not be extended easily across Europe because it would require extensive legal and regulatory changes regarding market structure and organisation at Member States level. As for the merger of market zones across borders, the Trading Region model across borders is a difficult process: beside agreements between the involved TSOs, it requires extensive co-ordination and co-operation of the involved NRAs and Member States to approximate the relevant aspects of the legal and regulatory context.

## 6. Market coupling and implicit auctions

The London workshop provided interesting analyses on the possible role of market coupling in gas markets.<sup>7</sup> One point stressed by the speakers is that the experience in electricity cannot be reproduced as such in the context of the gas market: markets are very different in nature and organisation and market coupling in gas should take these differences into account. The problems in gas markets are different and therefore solutions are likely to be different.

Contrary to the electricity markets prior to market coupling, gas markets already show a good convergence of spot prices and the situation is continuously improving. It seems that the low price spread experienced currently in the most developed gas markets would not allow market coupling to materialize substantial welfare gains for the whole gas market, as was the case in electricity.

As explained in section 2, the current gas commodity market is characterised by continuous OTC trading spanning from long-term gas trading to balancing gas trading. Introducing market coupling for the day-ahead gas market only would introduce a disruption in the timeline of the wholesale market and trading activities. Moreover it would not guarantee the convergence of within-day prices on the balancing markets.

Market coupling has not been experimented in the gas market yet. Therefore this solution is risky. The prerequisites for market coupling – i.e. exchanges or “organised markets”, harmonisation of market rules – make a fast and extensive implementation unlikely. The several market coupling projects in electricity have been quite expensive. In any case a sound impact assessment and cost/benefit analysis is required before envisaging a wide implementation of market coupling for gas. The outcome of such analysis is likely to be dependent on local or regional circumstances.

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<sup>7</sup> See EEX/E-Bridge presentation, “Market Coupling in Gas?” and PowerNext/GRTgaz presentation, “Pilot Project on Market Coupling PET Nord / PEG Sud”, Gas Target Model workshop, London, 11 April 2011.



The concept of “chained auctions” across several markets should be further analysed. Possible development of this concept are “conditional bids”, that allocate capacity only if all relevant auctions are successful; or secondary markets following auctions, allowing network users to “correct” the results of auctions according to their actual needs.

## **7. Zero-reserve price and cost recovery of cross-border investments**

According to economic principles, goods markets are integrated if the price difference between markets is lower than the transaction costs of moving goods from one market to the other. Assuming that the transaction costs for gas transmission between market zones is mainly composed of exit and entry transmission tariffs, gas markets are thus to be considered as integrated if the price difference between market zones is lower than the transmission tariffs between those market zones.

In gas markets, it is not necessary to have identical prices across market zones like in electricity, where each market covers more or less its demand by its own production. Gas has to be transported on long distances and the basis flows from production to consumption areas need a price difference to ensure investments in the necessary infrastructure.

Cross-border gas infrastructure represents a significant part of the total gas infrastructure in Europe, contrary to electricity. If there is no reserve price for day-ahead capacity in explicit or implicit auctions, day-ahead capacity would have no value as long as there is no physical congestion.<sup>8</sup> This is detrimental to long-term bookings for which the reserve price would be set at the regulated price : network users are not incentivised to book long-term capacity as it would be more expensive than short-term capacity. Moreover this would be detrimental to investments because TSOs would need to invest to remove congestion, while the revenues would decrease because congestion is removed.

If there is no reserve price, the cost of moving gas between markets is assumed to be zero and this means that the actual cost of the interconnection has to be recovered by other mechanisms than capacity bookings, which introduces a discrepancy with respect to cost recovery mechanisms for the domestic market arrangements.. This would result in tariff cross-subsidisation because the beneficiaries from the capacity would not pay for it. This is contrary to the requirements of the Third Energy Package.<sup>9</sup>

In conclusion, if introduced in gas markets, market coupling should allow for implicit auctions with a reserve price equal to the transmission tariffs between the connected markets, identical to the reserve price for long-term auctions.

## **8. Impact assessment and cost/benefit analysis**

The Target Model should foresee a detailed impact assessment and cost/benefit analysis of the proposed measures, especially for the merger of market zones and for market coupling. As recognised during the workshop, the most efficient solution may depend on local or regional

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<sup>8</sup> This is recognised on p.11 of the CEER presentation “*Connecting markets*”, Gas Target Model Workshop, London.

<sup>9</sup> Art. 13(1) of Regulation 715/2009/EC requires tariffs or tariff methodologies for transmission to “*reflect the actual costs incurred*”. Alternatively, market-based arrangements, like auctions, are possible. Further, tariffs shall “*avoiding cross-subsidies between network users and providing incentives for investment and maintaining or creating interoperability for transmission networks*”.



circumstances. Solutions may complement each other. Benefits should exceed costs significantly in order for measures to enjoy a broad acceptance by stakeholders.

The fulfilment of the Target Model will also entail additional expenditures : new infrastructure, IT investments, organised markets, could be needed, i.e. to increase the size of balancing areas, to support hub-to-hub trading... Those costs should be taken into account in the cost/benefit analysis.

The achievement of the Target Model will not be possible without a sound investment climate, especially for the merger of market zones. This aspect has to be reflected in the Target Model and thus in the Framework Guidelines and Network Codes.

### **Main preliminary conclusions**

The London workshop provided useful material to better understand options for the Target Model and particularly market merger and market coupling. Still detailed analyses are needed to assess the potential impacts, costs and benefits of the proposed models.

At this stage, the concluding statements for GIE are:

- Functioning integrated markets already exist in some regions of Europe; the development of CAM and CMP at European level will likely improve the situation elsewhere;
- The commodity market is characterised by the dominance of continuous OTC trading; the Target Model should be consistent with the current market organisation;
- The long-term interest to supply markets and the short-term interest to optimise the use of cross-border capacity have to be balanced; if capacity is allocated through auctions, the reserve prices for long-term and short-term products should be consistent;
- Regarding the merger of market zones, a sound impact assessment and cost/benefit analysis has to be carried out, taking into account local and regional circumstances;
- Market coupling has a strong impact on the organisation of the commodity market and is not likely to bring much welfare gain if the markets are already integrated;
- The Market Area and the Trading Region models require cooperation of the concerned TSOs, but also of the concerned regulatory authorities and Member States; the application of these models across borders may require the approximation of legal and regulatory contexts;
- The Target Model should include adequate mechanisms for cost recovery of cross-border investments and provide investment signals to infrastructure operators; when auctions are used for capacity allocation, the reserve price has to be set accordingly;
- The Target Model on transport should not impact on competitive activities of storage and LNG terminalling.

For GIE the Target Model should be a vision and a tool unified into one; It should contain successive steps leading to the ultimate goal designed. It should facilitate a consistent design of Framework Guidelines and Network Codes and should not endanger the existing timeline of the whole process.

Most importantly, a wide consensus amongst stakeholders for the Target Model will be key to its success.