



GIE feedback on 2nd CEER workshop on Target Model held on the 22 February 2011

Introduction

The 2nd workshop on the Target Model for gas organised by CEER in Bonn on 22 February 2011 has been an opportunity to have a preliminary look at the studies of the Florence School of Regulation and LECG. It has also been an opportunity to exchange views among stakeholders on the possible scope and content of the Target Model. CEER announced that further feedback is to be provided in a 2-weeks period following the workshop.

GIE welcomes the opportunity to provide more detailed comments on the material presented and on the main discussion subjects. In particular GIE welcomes the regulator engagement to ensure a robust process to deliver a Target Model to guide progress towards the single European gas market in line with the requirements expressed in the conclusions of Madrid Forum XVIII.¹

This document provides initial feedback to the Bonn workshop, which should be considered in addition to GIE's response to CEER's Call for Evidence of 14 January 2011.

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.

¹ Point 4 of the conclusions of Madrid Forum XVIII states : *"The Forum invites the Commission and the regulators to explore, in close cooperation with system operators and other stakeholders, the interaction and interdependence of all relevant areas for network codes and to initiate a process establishing a gas market target model. The regulators are ready to chair this process, and to present by end 2010 an outline on the definition and the scope of the model to be developed"*.



Comments regarding the Target Model process

Transmission infrastructure operators are facing several concurrent initiatives regarding proposed changes of access rules regarding transmission networks. On the European level:

- the Framework Guidelines / Network Codes process introduced by the Third Energy Package is already firmly under way with the Network Code on Capacity Allocation Mechanism (CAM) being expected in January 2012. In addition the Framework Guideline on Balancing is expected very soon.
- a proposal for new Congestion Management Principles (CMP) for transmission through Comitology has been drafted and is proposed for consultation, showing some overlapping or potential conflict with to the Framework Guidelines for CAM;
- the Target Model has been proposed by the Madrid Forum XVIII to look for interdependencies and consistency between the various network codes;
- the European Commission has proposed to envisage market coupling for gas in analogy to electricity in the framework of the Target Model.²

Moreover, there is substantial risk that further work on the Network Codes will be considerably delayed.

After CEER's Call for Evidence³, the 1st workshop in Vienna and the 2nd workshop in Bonn, the scope of the Target Model for gas is still unclear. Among others there was still discussion at the Bonn workshop as whether storage, LNG terminals and distribution networks should be included in the scope of the Target Model.

Operators and investors of natural gas infrastructure need clarity on the scope of the Target Model and coherency between all European – and national – initiatives aiming at introducing new access rules. The current situation is detrimental to operators and investors as it could possibly impact the present and future economic value of natural gas infrastructure, increasing thereby the risk of these activities.

Target Model in relation to storage and LNG terminals

The Third Energy Package has introduced the concepts of Framework Guidelines and Network Codes to progressively harmonise access conditions to transport gas across Europe. There is no such process for storage, which is often subject to negotiated TPA, nor for LNG terminals.

As access to the transport side of the interconnection points with storage or LNG terminals has to be consistent with the provisions of the Network Codes, the Target Model may indirectly impact on the

² "Communication from the Commission to the European Parliament and the Council – The future Role of Regional Initiatives", COM(2010)721 final , 7 December 2010. In particular : *"For gas, the potential role of market coupling in fostering market integration between balancing zones is to be examined in the discussion on a gas market target model. Market coupling should be aimed at by 2015 building on the work of the regulators. [...]"*

³ "CEER Vision Paper for a conceptual model for the European gas market – Call for Evidence", Ref: C10-GWG-70-03, 3 November 2010.



access to storage or LNG facilities. However that would modify the present and future economic value of these facilities.

Given the above, the Target Model should not affect competitive activities which are key elements for the development of the internal gas market and for the provision of security of supply in Europe. The future gas supply of Europe will require many new investments in upstream production and infrastructure, LNG terminals and storage. The Target Model should consistently take into account possible interaction with storage and LNG terminalling but should not impact on competitive activities. The Target Model should leave full freedom to LNG activities for defining and implementing access rules that are consistent with the access rules on the transmission side.

General considerations regarding the Target Model – Feedback from 2nd workshop in Bonn

1. Long-term vs short-term perspective

The presentations at the Bonn workshop focused on the short-term gas market. This is only a small part of the whole gas business. Long-term capacity and commodity relationships between producers, suppliers and infrastructure operators allows for an appropriate risk sharing on the entire gas value chain. Optimisations of short-time day-ahead capacity by implicit auctioning are a very small part of gas trading activity and require substantial preconditions to work at all (e.g. gas exchanges in the concerned markets) so that full-blown attention to this topic seems not to be justified.

Cross-border gas infrastructure represents a significant part of the total gas infrastructure in Europe, which is needed to ensure security of gas supply for Europe. It is important that investments in infrastructure are underpinned by long-term 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.

Therefore it is of utmost importance to uphold the importance of the longer term perspective of the gas market in the Target Model.

2. Problem-setting and possible solutions

Problems

The Target Model should contribute to the objectives of the Third Energy Package and aim at the development of trading hubs (leading to better and more efficient gas flows and trading across Europe); efficient measures for contractual and physical congestion; an easy access to capacity in all markets through a step-wise harmonisation of rules and procedures, using accurate and timely information from operators. It ought to be noted, however, that harmonisation should not be understood as unification.

Therefore it is important to identify first the problems to be solved. From the presentations and the discussions at the Bonn workshop, the main problems which were identified:



- establishing “functioning”, “market-capable”, “liquid” markets – this may require bigger market zones;
- improving access to capacity across market zones – through efficient CAM and CMP –, allowing price differences to be reduced across market zones as long as physical congestion does not occur.

“Functioning”, “market-capable” and “liquid” markets

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”. The assessment criteria proposed by LECG are a starting point.

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.

Therefore, gas markets for which the price difference is lower than the transmission tariffs have to be considered as integrated in order to assess whether they are “functioning”, “market-capable” or “liquid”.⁴

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 market zone need a price difference to ensure investments in the necessary infrastructure.

Efficient use of cross-border capacity

Regarding the second problem, measures should be proposed to more efficiently allocate interconnection capacity between market zones in order to reduce price spreads across market zones. Only when physical congestion occurs, could the price difference be higher than the transmission tariffs between the market zones. In this case, three sets of measures are currently proposed: Third Energy Package process; merger of market zones; and market coupling as in electricity.

Firstly, there are currently many initiatives to improve the current situation under the Third Energy Package. Framework Guidelines for CAM have been published by ERGEG,⁵ ACER has started a new

⁴ For example, the spot prices on NBP, Zeebrugge and TTF are very close most of the time and the flow between the UK and the continent is correlated to price differences (except when the connection infrastructures is in maintenance). Spot prices on PEG-Nord, Gaspool and NCG show recently an increasing convergence with NBP, Zeebrugge and TTF. Therefore those markets can often be considered as integrated.

⁵ ERGEG, “Revised Pilot Framework Guideline on Capacity Allocation Mechanisms”, E10-GWG-71-03, 7 December 2010.



consultation on Framework Guidelines⁶ and ENTSOG has to draft a Network Code by January 2012. In parallel, new CMP have been drafted⁷ and the European Commission has started a consultation as part of the impact assessment.⁸ But this will only help in case of contractual congestion.

Secondly, another approach to improve capacity usage at interconnection points between market zones is to merge those zones if no physical congestion exists. The utilisation of the capacity is left to the operator(s) and eventual physical congestion has to be solved solely by the operator(s), without the market. However bigger market zones requires more infrastructure in decoupled Entry/Exit regimes within the enlarged zone to ensure that gas can flow from any entry point to any exit point with consequential issues of financing and potentially higher cost.

Thirdly, another approach has been taken in electricity to allocate more efficiently day-ahead capacity: market coupling through implicit auctions. Several initiatives have taken place and are considered as successful as the day-ahead price differences in electricity are removed as long as there is no (day-ahead) physical congestion. Market coupling in electricity is only used on the day-ahead market. Explicit auctions are usually used for longer-term capacity and continuous trading is used on the intra-day market. Some plans exist to extend market coupling on the intra-day market. This approach is obviously contingent on the right market organisations (gas exchanges or auction offices) being in place which cannot be said of all European countries.

Section 3 provides more analysis on each proposed solution.

Impact assessment and cost/benefit analysis

As several measures are proposed, the Target Model should foresee a detailed impact assessment and cost/benefit analysis of the proposed measures, taking into account the European policy objectives of competitiveness, security of supply and sustainability. The most efficient solution may differ depending on regional 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. This aspect has to be reflected in the Target Model and thus in the Framework Guidelines and Network Codes. GIE welcomes the statement of CEER that harmonisation of transmission tariff structures should “*provid[e] incentives for efficient investments*”.⁹

Also in the investment context, the Target Model should clearly state that a market based approach, and not a regulatory or socialised, is preferred in Europe.

⁶ ACER, “Framework Guidelines on Capacity Allocation Mechanisms for the European Gas Transmission Network – Draft for Consultation”, DFGC-2011-G-001, 3 March 2011.

⁷ DG ENER, “Congestion Management Procedures – Commission proposal for guidelines to be adopted via a Comitology procedure”, 27 September 2010 (Madrid Forum XVIII).

⁸ DG ENER, “Public Consultation on the modification of Congestion Management Procedures in the gas sector,” from 15 February to 12 April 2011.

⁹ “CEER vision for European gas target model”, presentation at CEER workshop of 3 December 2010, p.14.



A view expressed by several speakers is first to merge market zones where this is feasible at an acceptable cost, and thereafter interconnect more efficiently the resulting bigger market zones.

3. Preliminary analysis of the proposed solutions

Third Energy Package developments

The proposed developments on CAM and CMP aim already at solving the problem identified. Moreover most of the proposed measures are already applied in one country. Therefore it is easier to assess their effectiveness. However the whole set of proposed measures has not been implemented at the same interconnection points.

An important point raised on by the Framework Guidelines for CAM is the reserve price for auctions in interconnection capacity.

Cross-border gas infrastructure represents a significant part of the total gas infrastructure in Europe, in contrary to electricity infrastructure. If there is no reserve price for day-ahead capacity in (explicit) auctions, day-ahead capacity would have no value as long as there is no physical congestion. 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. This would result in tariff cross-subsidisation because the beneficiaries from the capacity will not pay for it. This is contrary to the requirements of the Third Energy Package.¹⁰

Efficient CAM and CMP measures may also apply to intra-day flows or balancing. According to the Third Energy Package, balancing should be market-based : shippers balance their supply and demand portfolio by sales and purchases at virtual trading points. If balancing gas is cheaper from a neighbouring market, the available cross-border capacity can be used for balancing purposes, through capacity bookings and nominations. Residual balancing carried out by TSOs may also use the same market-based mechanisms, eventually from an adjacent market area.

If the within-day price difference between gas markets is lower than the cost of capacity between these markets, then the within-day markets – or balancing markets – are integrated.

Several proposed measures on CAM and CMP are prerequisites for market coupling. Thus if market coupling is chosen to connect gas market zones, the current developments under the Third Energy Package are useful anyway.

¹⁰ 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”.



Merger of market zones

Two elements have to be taken into account when assessing market integration:

- A functioning market is characterised by effective competition. Merging small markets into bigger markets where there is easier access to more gas sources improves the functioning of the market;
- 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. In such case, small well-interconnected markets behave like one big market, where price differences represent transportation costs.

Therefore the size of the market does not play a significant role regarding the functioning of the market. Small well-interconnected markets behave like one big market. This is the case if there is enough capacity between markets to ensure that the price difference between markets is lower than the transmission tariffs.

Larger market areas require more infrastructures in entry/exit regimes because gas should be able to move from any entry point to any exit point. Therefore merging market areas will likely require significant investments, resulting in higher transmission charges or alternative cost-recovery mechanisms, ultimately born by end-users. In large market areas entry/exit tariffs are usually less cost-reflective, what in the case of a market area stretching over several countries would almost certainly entail considerable difficulties over tariff setting.

Merging market areas brings increased competition due to easier access to more gas sources, resulting in lower gas prices for end-users. These benefits are difficult to quantify.

The trade-off is difficult to make 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.

Whenever market zones are the topic of the discussion, the Target Model reaches, from the legal basis of transmission founded in the Directive and Regulation, deeply into distribution issues. This conflict or extension should also be openly addressed as well as the intersection with distribution networks in general.

Market coupling

It seems easy to transpose the successful experience of market coupling in electricity markets to gas. However electricity and gas have fundamentally different characteristics, which should be taken into account when speaking of the gas market design, such as:

- gas can be stored, contrary to electricity;
- the compressibility of gas allows to use linepack as a tool to buffer small supply/demand imbalances;
- gas takes longer to transport through the network;



- security of supply is more pertinent and sensitive for gas than for electricity; gas is mainly produced in a small number of countries outside the EU while electricity is produced indigenously;
- gas has to be transported on long distances from production to consumption area; therefore cross-border gas flows are huge and used primarily to *supply* markets rather than to *balance* between markets as is the case for electricity.

These aspects should be considered in the context of the Target Model design for gas, as the direct application of some elements of the electricity market integration concepts may have negative impact on cross-border gas flows, security of gas supply and investments in infrastructure.

Market coupling in electricity was introduced mainly to solve two problems: huge price spreads between adjacent market zones while capacity was not fully used; and flows in the opposite direction of price spreads. On the contrary, gas market show already 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 markets would not allow market coupling (as in electricity) to materialize substantial benefits for the whole gas market.

If introduced in gas markets, market coupling should allow for implicit auctions with a reserve price equal to the transmission tariffs between the gas markets for the reason explained in section “Third Energy Package developments”: 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.

Moreover market coupling in electricity is only used on the day-ahead market. Explicit auctions are used for longer-term capacity and continuous trading is used on the intra-day market. Market coupling does not seem a suitable solution for long-term and futures markets which are very important in gas.

Market coupling has not been experimented in the gas market yet. Therefore this solution is more risky as the impact, costs and benefits are more difficult to assess. As it is considered now as a possible solution for day-ahead market only, other solutions are anyway needed for longer-term and intra-day markets. The prerequisites for market coupling – i.e. exchanges or “organised markets”, harmonisation of market rules – make a fast and extensive implementation unlikely.

At the Bonn workshop, several speakers expressed doubts as to whether market coupling (as in electricity) would be a good solution for gas markets. Rather they expressed that the currently proposed measures on CAM and CMP will foster the developments already experienced in the most advanced market and effectively integrate the gas markets.

Preliminary conclusions

The Bonn provided useful material and discussions to better understand the scope of the Target Model and the possible role of market coupling. However it is too early to choose for a model because detailed analyses are first needed to assess the potential impacts, costs and benefits of the proposed models.



The concluding statements for GIE are:

- there is a need for clarity about the process and scope of the Target Model and the intersection with distribution;
- the Target Model on transport should not impact on competitive activities of storage and LNG terminalling;
- the long-term aspects of the gas market should be upheld in the Target Model; a reasonable and sustainable coexistence of long-term and short-term relations should be looked for;
- problems have to be clearly defined; a deep impact assessment and the cost/benefit analysis of proposed solutions has to be carried out;
- the Third Energy Package developments (Framework Guidelines and Network Code) pave the way towards the objective of the Target Model;
- market coupling seems to be difficult to transpose from electricity to gas and in general less relevant;
- the merger of market zones is a possible solution if investments are limited and the resulting tariff consequences manageable;
- a sound investment climate setting correct investment signals is required to implement the Target Model.

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.