

EuroPEX Response
to
ERGEG Call For Evidence On Gas Target Model

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1. Introduction

1. EuroPEX welcomes the initiative of ERGEG, that following the conclusions of the 18th Madrid Forum, has launched this call for evidence, aimed to explore, in close cooperation with stakeholders, the interaction and interdependence of all relevant areas for network codes and to initiate a process establishing a gas market target model.
2. At the 18th Madrid Forum the European Commission and regulators were invited to explore the interaction and interdependence of all relevant areas for network codes by establishing a gas market target model. However, the development of the target model was preceded by the capacity allocation and gas balancing framework guidelines. Therefore, EuroPEX would appreciate it if the European Commission and regulators could - in response to the call for evidence - give a clear view on how the target model relates to these already existing framework guidelines and how discrepancies between them are to be overcome.
3. This note contains the response of EuroPEX to the call for evidence on gas market target model. It builds on our position paper on gas balancing¹ and on our responses to ERGEG consultations on “Draft Framework Guideline on Gas Balancing”², on “Existing transparency requirements for natural gas”³ and on “Assessment of Capacity Allocation Mechanisms and Congestion Management Procedures for effective Access to Storage and Proposals for the Amendment of the GGPSSO”⁴.
4. EuroPEX agrees that, currently, the internal market in natural gas suffers from a lack of liquidity and transparency hindering the efficient allocation of resources, risk hedging and new entry. Therefore, we believe that, with a view to creating an

¹ EuroPEX, “Position Paper on Gas Balancing”, (<http://www.europex.org/default.asp?kaj=news&id=302>).

² EuroPEX, “Response to ERGEG consultation on Draft Framework Guideline on Gas Balancing”, (<http://www.europex.org/default.asp?kaj=news&id=305>).

³ EuroPEX, “Response to ERGEG consultation on existing transparency requirements for natural gas”, (<http://www.europex.org/default.asp?kaj=news&id=307>).

⁴ EuroPEX, “Response to ERGEG consultation on Assessment of Capacity Allocation Mechanisms and Congestion Management Procedures for effective Access to Storage and Proposals for the Amendment of the GGPSSO”, (<http://www.europex.org/default.asp?kaj=news&id=303>).

internal market in natural gas, relevant European institutions, Member States and stakeholders should jointly focus their efforts in order to foster the development and integration of their national markets and the cooperation of system operators and Energy Exchanges at Community and regional level.

5. EuropEX agrees that main “corner stones”, as already codified by the 3rd Package, of a conceptual model for an European gas markets are the following: establishment of Entry/Exit (E/E) zones for transmission systems, market-based balancing, Third Party Access (TPA) to transmission systems and to storage and LNG facilities, regional cooperation of Transmission System Operators (TSOs) and transparency.
6. EuropEX members are willing to apply their skills and experience with the aim of fulfilling the final objective of creating a transparent, efficient, liquid and integrated European gas markets.

2. Main Goals and requirements of the Gas Market Target Model

7. EuropEX believes that under the framework of the 3rd Package, the main goal of the regulation is to promote a gas market target model that enables the development of a liquid Internal European Gas Market, where barriers to free trade of gas within Europe are minimized.
8. The creation of a liquid internal European Gas Market relies on the simplification and the harmonisation of transport schemes (to enable hub-to-hub trading) and the introduction of market-based, non-discriminatory and competitive mechanisms as means to manage the balancing system and the TPA to transmission systems and to storage and LNG facilities.
9. Simplification and harmonisation of transport schemes should be obtained by integrating capacity available at both sides of every interconnection point (IP) connecting adjacent entry-exit systems (i.e. by bundling capacities of different IPs into a single capacity product). In this way the transport of gas from one system to an adjacent system can be provided via a single allocation and nomination procedure, thus enabling an effective hub to hub trading

10. The adoption of market-based mechanisms is the basis for the promotion of transparent price formation mechanisms for gas and capacity trading in the wholesale markets.
11. Transparent price formation in a context of liquid and reliable markets, where information on market and system status are timely available, creates condition for ensuring that new investments are correctly driven by efficient price signals and barriers to new entrants are minimized.
12. Moreover, European regulation should introduce a harmonized set of rules, covering the adoption of a unique gas-day (from 6.00 am to 6.00 am CET), Allocation regime at entry and exit points, under which the quantity nominated by the Shipper at these points is considered delivered (OBA allocation regime), uniform Capacity Allocation Methods (CAM) and Congestion Management Procedures (CMP) for transmission systems and for storage and LNG facilities and balancing mechanism across Europe.
13. European regulation should recognize the different roles of market parties. A clear unbundling of roles between regulated TSOs activities, and EX functions will allow more flexibility in markets design. TSOs are responsible for operation and development of grid infrastructure. Energy Exchanges are responsible for the development and functioning of liquid market places, for the formation of reliable price indices and for the promotion of market developments.
14. Finally, in case interim steps are needed in a view of implementing the target model, it is necessary to clearly define which are the binding transitional arrangements and the related deadlines.

3. Balancing mechanisms

15. EuroPEX advocates the development of integrated, liquid and efficient wholesale markets for gas in Europe and considers market-based balancing rules as a corner stone of this objective. The current patchwork of balancing rules and mechanisms across Europe hampers cross border gas trading and as such impedes the development of liquid, integrated (spot) markets.

16. Therefore, EuroPEX strongly supports the development of an European gas market target model that relies on a framework aimed at developing harmonized balancing rules and market based balancing mechanisms between adjacent market areas or member states.
17. Market based “daily” balancing should be the target model for Europe. Mindful of the importance of balancing rules for the realization of Europe’s vision of a single integrated gas market, EuroPEX considers it of key importance that a set of binding transitional arrangements is developed, aimed at implementing the target model.
18. A market-based daily balancing regime must satisfy the following five basic conditions:
 - Network users shall be primary responsible for balancing their portfolios and must be able to redress deviations between their system inputs and off-takes by buying or selling gas on a spot market (either day ahead and/or intra-day);
 - Network users shall be allowed to assist the TSO in restoring system balance by buying or selling gas on a spot market (either day ahead and/or intra-day).
 - The TSO is ultimately responsible for maintaining the overall network integrity and shall redress residual network imbalances by buying or selling gas on a spot market (either day ahead and/or intra-day) as soon as a pre-determined system-balance limit is breached.
 - The volume and marginal price at which a TSO buys or sells gas on a spot market (either day ahead and/or intra-day) to restore system balance forms the basis for the settlement of imbalances between the TSO and network users.
 - A daily balancing regime is typified by a daily settlement cycle during which network users are ‘cashed out’ every day by the network operators for any remaining imbalances. From this it follows that in a cumulative balancing system, measures should be taken to ensure that the provided tolerances are arbitrage-free in comparison to the marginal (settlement) price.

19. EuropEX supports the recommendation of ERGEG⁵ that TSOs trading on the wholesale market to balance the system is the option that is the most market based. Therefore we support the target model which obliges TSOs to procure the gas they need for balancing through buying and selling gas in the wholesale gas market on an equal footing with network users.
20. Intervention volumes should cover 100% of the TSO needs as the network imbalance system is a key element of the spot price constitution (and hence, should participate in full-measure to the price settlement). TSOs should be allowed to intervene in smaller proportion only in case there are conditions in the system that, combined with full intervention by TSO, could result in inefficient outcomes. Those condition are :
 - TSO's ability to correctly anticipate its needs in terms of volume intervention;
 - efficient functioning of the imbalance charges (arbitrage-free) between the TSO and network users
 - The process of TSO's intervention in the market.
21. It is intended that Regulator should identify measures and a clear road-map in a view of removing the conditions that prevents TSO to cover 100% of its need by intervening in the wholesale market. Establishment of "ad hoc" balancing platforms should be limited only for a pre-defined transitional period, in case wholesale markets are not in place. . In fact, coexistence of two different platforms (wholesale and balancing) would split liquidity between two markets and besides, the progressive use of the market by the TSO is key for the development of its liquidity.
22. Energy Exchanges have shown in the past their ability to design, implement and operate (balancing) markets in a highly professional manner and in accordance with the needs of the market participants and TSOs.
23. Therefore, EuropEX is keen on providing assistance in the development, implementation and operation of balancing regimes. Below we provide our view on the role of exchanges. The role of an exchange is to:

⁵ ERGEG, E10-PC-54: Draft pilot framework guideline on gas balancing.

- provide a centrally cleared and liquid trading market for network users and TSOs;
- perform the role of Central Counter Party (CCP) which protects TSOs and network users from counterparty risk, enables an efficient settlement process of imbalance charges and ensure the anonymity of market parties;
- ensure a fair and orderly market process through transparent and non-discriminatory market rules, subject to oversight of national regulators,
- reduce entry barriers by applying transparent and non-discriminatory accession rules;
- provide timely and relevant information relating to prices, volumes, indices (settlement prices) and balancing actions taken by the TSO whilst preserving the anonymity of market parties,
- support TSOs and network users in implementing processes and products which are in line with market principles, with particular focus on the design of rules balancing actions by TSOs.

4. TSO Procurement of Gas

24. Besides balancing gas, TSO should procure any type of gas needed to cover its needs (fuel gas, technical gas, etc.) by intervening on the wholesale markets.
25. Intervention of TSO in the wholesale market should be fully transparent, meaning that TSOs should timely publish ex-post information regarding the quantity and the purpose of gas procured on the wholesale markets.

5. Capacity Allocation Mechanisms and Congestion Management Procedures (CAMs & CMPs)

26. EuroPEX believes that CAMs and CMPs should be based on market-based mechanisms, which increase competition, enable non-discriminatory access to network and to storage and LNG capacity and provide system users with clear and efficient pricing signals.

27. Auctions are the most economically efficient allocation method for capacity. As capacity auctions are driven by “the willingness to pay” by users they 1) create appropriate pricing signals for efficient use of the available capacity, 2) express the costs of using capacity while 3) providing clear investment signals at the same time when there are physical congestions.
28. Moreover, auctions have clear advantages as it is a transparent process and allows new entrants in the market the possibility to access the capacity on a non-discriminatory basis, thus promoting a level-playing field situation.
29. Auctions can be implemented both in form of explicit and of implicit auctions (market coupling).
30. Explicit auction should be accompanied by organised secondary markets, where capacity products can be re-traded.
31. Implicit auction (market coupling), by integrating capacity allocation and gas trading in the spot market, is the most efficient method for short-term (day-ahead) capacity product allocation and for congestion management. As real time approaches, it becomes increasingly difficult for market participants to coordinate their gas and capacity positions if these are defined on separate markets, as it is the case with explicit auctions.
32. By integrating capacity allocation and gas trading, implicit auctions overcome these inefficiencies, provide consistent price signals and ensure that the available transfer capability is fully used, subject to demand.
33. A proper design of market mechanisms is fundamental and should be implemented while taking into (proper) consideration the over-all design of the underlying wholesale and balancing markets.
34. Impact of introduction of market-based CAMs and CMPs on TSOs’ congestion revenues should be taken into proper account in the network tariff design, in order to maintain sufficient revenues to invest in new capacity infrastructures..
35. The absence of congested border should be reflected in larger (cross-border) market zones.
36. Energy Exchanges would like to play a prominent role in the further development of efficient market-based CAMs and CMPs. Thus far allocation and trading of

(secondary) capacity on exchanges (in addition to commodity trading) has proven to be beneficial to market parties.

37. Efficient market-based CAMs and CMPs for capacity could rely on centrally cleared market platforms, eventually integrated with wholesale and balancing markets, provided by Gas Exchanges.
38. In case of explicit auction of capacity products, Energy Exchanges:
 - can design, implement and manage both primary auctions and secondary markets of capacity products;
 - can ensure a fair and orderly process for primary auctions and secondary capacity markets through the definition of transparent and non-discriminatory market rules, subject to oversight of competent authorities;
 - by performing the role of Central Counter Party (CCP), protect System Operators (in the primary auctions) and system users (in secondary markets) from counterparty risk, enable an efficient settlement process and ensure the anonymity of market parties;
 - can publish timely and relevant information, given by System Operators, relating to the status of the system, prices and volumes, creating indices of capacity products;
 - independent from market parties and System Operators and supervised by energy and/or financial regulatory authorities, ensure a non-discriminatory and competitive access to the primary auctions and to secondary markets for capacity products.
39. In case of implicit auctions, Energy Exchanges:
 - are jointly responsible to adopt a “common” matching algorithm, that takes into account grid model and transmission capacity defined by TSOs;
 - are jointly responsible for managing day-ahead and within-day coordinated and harmonized price matching procedures;
 - efficiently allocate capacity according to price differential between adjacent hubs.

6. Transparency

40. Directive 2009/73/EC states that organized markets are identified as key tools to remove “*structural rigidities arising from concentration of suppliers, the long term contracts or the lack of downstream liquidity*”.
41. A proper design of basic transparency requirements is fundamental and should be implemented for a well functioning internal market and for the development of effective and efficient market functioning. Moreover, the measures that Member States should take in order to ensure a level playing field should be based on an appropriate regulatory framework defined at European level.
42. Harmonized transparency rules should facilitate an appropriate regulatory framework to guarantee fair competition, sufficient investment, access for new market entrants and the integration of gas markets.
43. The members of EuropEX are strong supporters and enablers of gas market development, operating and integration, and look forward to applying their skills and experience with the aim of creating transparent, efficient, liquid and integrated European gas markets.
44. Transparency of information is an important element of a well functioning market. Therefore, network users shall have access to accurate, near-real-time information with regards to the balancing status of their portfolios and of the system.
45. In this framework, EuropEX considers that System Operators (TSOs, SSOs and LSOs) shall be primary responsible to ensure that network users have equal access to accurate, near-real-time information with regards to the status of their portfolios and the transportation system.
46. EuropEX notes that bodies, independent from stakeholders where such information is derived, should be qualified to coordinate, support and publish information relating to the status of the system.
47. Such neutral bodies should include Energy Exchanges (also considering that TSOs should procure balancing resources in the wholesale markets and that market-based CAM and CMP are strongly correlated to wholesale gas markets) as they

have the natural interest and competence to facilitate the accessibility of such information.

48. Moreover, Energy Exchanges are independent from market participants and system operators because they do not have direct commercial interest in this type of information. In addition, their activities are internally supervised and typically subject to oversight by sectoral or financial regulatory entities.

7. Answers to questions

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?*

Under the framework of the 3rd Package, the main goal of the regulation is to promote a gas market target model that enables the development a liquid Internal European Gas Market, where barriers to free trade of gas within Europe are minimized.

The creation of a liquid internal European Gas Markets relies on the simplification and the harmonisation of transport schemes (to enable hub-to-hub trading) and the introduction of market-based, non-discriminatory and competitive mechanisms as means to manage the balancing system and the TPA to transmission systems and to storage and LNG facilities.

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;*
 - b. *the role of hubs / gas exchanges.*

Internal markets in natural gas still suffer from a lack of liquidity and transparency hindering the efficient allocation of resources, risk hedging and new entry.

Priority should be given to the introduction of market based mechanism for balancing methods (integrated with wholesale markets) and TPA access to network, storage and LNG facilities as tools to support liquidity.

Regarding long term capacity contracts, EuroPEX believes that capacity should be auctioned through products with different duration, with maximum duration of one

year. Auctioning of products with duration longer than one year could result in barriers for new entrants.

Regulation should support cooperation between Gas Exchanges and TSOs in order to implement efficient CAM and CMP, such as implicit auctions. In this regards, it is important that Regulation recognize the different roles of market parties. A clear unbundling of roles between regulated TSOs activities, and EX functions will allow more flexibility in markets design. TSOs are responsible for operation and development of grid infrastructure. Energy Exchanges are responsible for the development and functioning of liquid market places, for the formation of reliable price indices and for the promotion of market developments.

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.*

Introduction of market-based, non-discriminatory and competitive mechanisms as means to manage the balancing system and the TPA to transmission systems and to storage and LNG facilities are the key elements of a conceptual model for the European gas market leading to non-discrimination, effective competition, and the efficient functioning of the internal gas market. The adoption of market-based mechanisms is the basis for the promotion of transparent price formation mechanisms for energy and capacity trading in the wholesale markets.

Transparent price formation in a context of liquid and reliable markets, where information on market and system status are timely available, creates condition for ensuring that new investments are correctly driven by efficient price signals and barriers to new entrants are minimized.

EuroPEX notes the importance of integrated Hi-cal and Low-cal gas markets for the development of a liquid gas market. Therefore TSOs shall offer gas quality conversion capacity as a system service. This means that, when possible, the TSO is responsible for

offering sufficient capacity to network users in both directions (Hi to Low-cal and vice versa) without the need for network users to book quality conversion capacity in advance. The cost incurred by offering quality conversion capacity should be socialised in the network tariffs".

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?*
 - 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 creation of an Internal European Gas Market requires the adoption of a harmonized set of rules at European level. Main aspects to be defined at European level should cover the adoption of a unique gas-day (from 6.00 am to 6.00 am), uniform Capacity Allocation Methods (CAM) and Congestion Management Procedures (CMP) for transmission systems and for storage and LNG facilities (explicit and implicit auctions, type of products, UIOLI/UIOSI principles, timelines for nominations) and balancing mechanism (integration with wholesale market, adoption of market-based imbalances prices) across Europe.

Harmonization of rules should be introduced taking into proper account the different national regulatory frameworks in Europe.

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?*

EuroPEX believes that the gas market target model should be focused on the establishment of Entry/Exit (E/E) zones for transmission systems, market-based balancing, Third Party Access (TPA) to transmission systems and to storage and LNG facilities based on market mechanisms, TSO procurement of gas (fuel gas, technical gas, etc.) on the wholesale market, regional cooperation of Transmission System Operators (TSOs) and Gas Exchanges in a view of promoting market integration and transparency.

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

See answer to question 5.

7. *What are the options for integrating the currently fragmented European markets? 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 drawbacks in this model in your view.*

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?*

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

EuropEX believes that definition of balancing zone should be done adopting the same criteria at European level. As general statement, balancing zone should be defined by TSOs according to the following principles:

- network capacity with adjacent zones is frequently congested according to normal utilisation of the network and capacity demand;
- network capacity within the zone is not frequently congested according to normal utilisation of the network and capacity demand.

Balancing zones should reflect, where possible, the existing virtual hubs, in order to promote liquidity of wholesale market and reliable price indices at “hub” level.

With regards to market coupling, EuropEX believes that integration of capacity allocation and gas trading grants optimization in the pricing of the capacity (that reflects the price differential between adjacent areas) and in the usage of capacity (flows always go from area with lower price to area with higher prices).

Experience in electricity shows that in those borders where implicit auctions have been implemented, significant results have been reached in terms of price convergence between adjacent markets:

- in case cross-border capacity is not a scarce resource (i.e. it does not get congested), implicit auction ensures that prices of adjacent markets converge to the same value;
- in case cross-border capacity is a scarce resource (i.e. it does get congested), implicit auction ensures that prices of adjacent markets converge as much as possible and that the difference is the “real” value of the congestion.

Moreover, market coupling (and implicit auctions in general) promotes liquidity in the participating spot markets. In fact, by allocating the interconnection capacity through spot markets, implicit auctions encourage market participation, especially by those agents who wish to trade gas across congested borders; and wider participation increases market liquidity.

However, gas and electricity are different commodities. As the transport network in gas is by definition less constrained compared to the one in electricity (where cross-border capacities represent a marginal share of local consumption), Gas Target Model should support adoption of larger market zones, meaning that those zones that are not separated by a congested border should be merged into a single zone. When merging is not possible, auctions should be put in place. These auctions will create clear investments signals. However, design of TSO tariff should take into proper account the potentially strong changes in its revenues.

Moreover, to implement market coupling, there are some mandatory prerequisites:

- balancing zones based on an entry-exit scheme;
- allocation of firm capacity;
- OBA allocation regime at cross-border points and allocation in MWh;
- bundled capacities offered by TSOs at IPs : same capacity products offered on each side of the IP (firmness, volume, maturity and allocation procedures).