

Gas Balancing Rules on European Gas Transmission Networks Draft Pilot Framework Guideline

Ref: E10-GNM-13-03

18 August 2010

Council of European Energy Regulators ASBL 28 rue le Titien, 1000 Bruxelles Arrondissement judiciaire de Bruxelles RPM 0861.035.445



INFORMATION PAGE

Abstract

On 6 August 2010 the Commission invited ERGEG to draft a pilot framework guideline on gas balancing rules in gas transmission networks. In the context of the pilot project, ERGEG declared its readiness to assume the role assigned to the Agency under Article 6 (2) of Regulation (EC) 715/2009 ("Gas Regulation") and to submit a non-binding framework guideline within 6 months of receipt of the Commission's notification.

Target Audience

Energy suppliers, traders, gas/electricity customers, gas/electricity industry, consumer representative groups, network operators, Member States, academics and other interested parties.

If you have any queries relating to this paper please contact:

Mrs. Fay Geitona

Tel. +32 (0)2 788 73 32

Email: fay.geitona@ceer.eu

How to respond to this consultation

Deadline: 28 October 2010

Comments should be sent by e-mail to: fg gasbalancing@ergeg.org

All responses except confidential material will be published on the website www.energyregulators.eu.



Treatment of Confidential Responses

In the interest of transparency, ERGEG

- i) will list the names of all respondents (whether confidential or not) or, alternatively, make public the number (but not the names) of confidential responses received;
- ii) requests that any respondent requesting confidentiality submit those confidential aspects of their response in a "confidential appendix". ERGEG will publish all parts of responses that are not marked confidential.

For further information on ERGEG's rules, see ERGEG Guidelines on Consultation Practices.

Related Documents

CEER/ERGEG documents

- "Gas Balancing Rules on European Gas Transmission Networks Draft Pilot Framework Guideline, Initial Impact Assessment", ERGEG, August 2010, Ref: E10-GNM-13-04
- "Pilot Framework Guideline on gas balancing rules Instructions for responding to the public consultation", ERGEG, August 2010, Ref: E10-GNM-13-03b



Table of Contents

1.	SCOPE5
2.	DEFINITIONS6
3.	PURPOSE & POLICY OBJECTIVES8
4.	TSO INFORMATION PROVISION OBLIGATIONS10
4.A	. TARGET MODEL
5.	NETWORK USERS AND TSO ROLES & RESPONSIBILITIES11
5.A	. TARGET MODEL12
5.B	. INTERIM STEPS12
6.	BALANCING PERIODS13
6.A	. TARGET MODEL
6.B	. INTERIM STEP14
7.	IMBALANCE CHARGES14
7.A	. TARGET MODEL15
7.B	. INTERIM STEPS16
8.	BUYING AND SELLING OF FLEXIBLE GAS AND BALANCING SERVICES BY TSOS16
8.A	. TARGET MODEL
8.B	. INTERIM STEPS18
9.	CROSS-BORDER COOPERATION
10.	COMPLIANCE



DRAFT PIIOT FRAMEWORK GUIDELINE ON GAS BALANCING RULES IN EUROPEAN GAS TRANSMISSION NETWORKS

1. SCOPE

1.1. The purpose of this pilot framework guideline is to develop EU-wide principles for a network code for gas balancing, as required in Article 8.6 of the Gas Regulation 715/2009.

1.2. This pilot framework guideline for gas balancing applies to balancing regimes for transmission systems within EU borders. It deals amongst other things with the harmonisation of such balancing regimes, both between Member States and within Member States, insofar as such harmonisation is necessary in order to facilitate gas trade and support the development of competition within the EU as per the requirements of the Gas Directive 2009/73/EC and the Gas Regulation 715/2009.

1.3. This pilot framework guideline also applies to arrangements for cross-border balancing, which is the exchange or trade of flexible gas between neighbouring balancing zones and the netting of network users' imbalances across adjacent balancing zones in order to support the development of competition and to facilitate market integration.

1.4. For the avoidance of doubt, the methodologies establishing the terms and conditions for the provision of gas balancing services that regulatory authorities shall fix or approve under the provisions of Article 41.6.(b) of Gas Directive 2009/73/EC shall be consistent with the network code for gas balancing.



2. **DEFINITIONS**

2.1. For the purpose of this pilot framework guideline, the following definitions apply:

In these definitions, all references to the Transmission System Operator (TSO) refer to the entity responsible for keeping the system in balance. Where this is a party different from TSO, references to TSOs in this document relate to that party.

'Balancing period' means the period within which the off-take of an amount of natural gas, expressed in units of energy, must be offset by every network user by means of the injection of the same amount of natural gas into the transmission system in accordance with the transportation contract or the network code (as defined in Article 2(10) of Gas Regulation 715/2009)

'Balancing platform' is a trading platform on which flexible gas is bought and sold, balancing services are procured and the TSO is party to every trade.

'Balancing regime' means the rules and agreements that apply to portfolio and TSO balancing, including the procurement of balancing services and imbalance charges.

'Balancing services' means additional services (i.e. additional to the buying and selling of flexible gas) that a TSO may buy in order for the system to remain within safe operational limits, for example the ability to inject gas into storage.

'Balancing zone' is defined by an entry-exit system for which the specific balancing regime is applicable. One market area can comprise several balancing zones.

'Cross-border balancing zone' is a balancing zone which consists of (parts of) more than one Member State.



'Cross-border balancing' means both the exchange or trade of flexible gas between neighbouring balancing zones in order to facilitate market integration and the arrangements between network users to trade out their imbalances across two adjacent balancing zones.

'Flexible gas' means gas required to meet short term fluctuations in demand by customers, e.g. provided by storage, LNG supplies or production. It also contributes to overall system security by responding to unexpected system outages.

'Imbalance' is when individual network users' injections to the system differ from their off-takes or where aggregate inputs to the system differ from aggregate off-takes from the system in a balancing period. This may result in either individual network users and/or the TSO buying or selling gas (or the TSO buying balancing services) in order to offset the imbalance. Inputs and off-takes to and from the transmission system can take the form of either physical gas at a specific point or gas exchanged at a virtual point in the market.

'Imbalance charge' means the charge applied by a TSO to network users (or payment received by a network user) for financial settlement of the differences between their inputs to and offtakes from the gas transmission system.

'Linepack' means the storage of gas by compression in gas transmission and distribution systems, but not including facilities reserved for TSOs carrying out their functions (as defined in Article 2 (15) of Gas Directive 2009/73/EC).

'Local balancing' means the actions undertaken by the TSOs addressing imbalances at particular locations within the system.

'Long-term flexible gas products' are gas traded before the day-ahead stage, i.e. include weekly, monthly, annual or multi-annual durations.

'Network user' is a party that uses the transmission system to transport gas from one location to another.



'Portfolio balancing' means the actions undertaken by network users in order to help ensure that their off-takes from a system match their inputs onto the same system over the duration of the relevant balancing period.

'Short-term flexible gas products' are gas traded intraday or day-ahead.

'Transmission system' (or 'system') means a high pressure transmission network consisting of terminals, compressor stations, pipeline systems and off-take points within a Member State.

'TSO balancing' means the actions undertaken by the TSO to ensure that the system stays within its accepted operational limits. These actions can be a result of differences between the aggregate inputs and off-takes of network users but may be unrelated to network users being out of balance individually or on aggregate.

'Wholesale market' is a physical or virtual point at which network users trade gas with each other either bilaterally, or via an exchange. The TSO can also trade in this market for balancing purposes. A range of products can be traded including: financial/ virtual, physical (where the gas is required to be delivered at a certain point) and temporal (where the gas is required to be delivered during a certain period).

3. PURPOSE & POLICY OBJECTIVES

3.1. The purpose of this pilot framework guideline is to set out clear and objective principles for the development of a network code on gas balancing as required by Article 6(2) of the Gas Regulation 715/2009¹.

¹ The requirement for the network node is set out in Article 8, the requirement for the framework guideline in Article 6 of the Gas Regulation 715/2009.



3.2. The over-arching objective of the network code is to encourage and facilitate gas trade across systems and support the development of competition within the EU, both between Member States and within each Member State, and thereby move towards greater market integration.

3.3. The specific objective for the network code on gas balancing is to create balancing rules including network-related rules on nominations procedures, rules for imbalance charges and rules for operational balancing between TSOs' systems as required by Article 8(6)(i) of the Gas Regulation 715/2009.

3.4. The network code shall also have regard to the requirements in Article 21 of the Gas Regulation 715/2009 namely balancing rules that are fair, non-discriminatory, based on objective criteria and are market-based while reflecting the resources available to the TSO.

3.5. To this end, article 21 of the Gas Regulation 715/2009 requires TSOs to:

- provide sufficient, well-timed and reliable information on the balancing status of users to enable network users to balance (Article 21.2);

- apply imbalance charges that are cost-reflective to the extent possible, whilst providing appropriate incentives on network users to balance their inputs and off takes of gas (Article 21.3); and

- endeavour to harmonise and streamline balancing structures and imbalance charges in order to facilitate gas trade (Article 21.4).

3.6. Given the different stages of development of competition and liquidity in the gas markets across Europe, this pilot framework guideline defines interim steps towards achieving a common target model. The network code shall define balancing rules that are consistent with the target model but that allow for TSOs, upon NRA approval, to implement interim steps, where this may be appropriate.

3.7. ACER and the NRAs shall monitor that TSOs develop the network code in accordance with this pilot framework guideline.



3.8. The network code shall require ENTSO-G to regularly review the progress towards implementing the target model.

4. TSO INFORMATION PROVISION OBLIGATIONS

4.1. Aggregate network user input and off-take information needs to be made available by the TSO in a clear, timely manner and on the same timescale to all network users in order for them to be able to take necessary actions to correct their imbalances. Network user specific (but market sensitive) information should be made available to the relevant network user in a similar manner.

4.2. It is also important that network users are aware of actions by the TSO in buying, selling of gas from network users or other TSOs. Regular information is also required on the overall status of the system. Consistency across Europe is also required in how information is published to prevent information barriers hindering cross border trade.

4.3. The network code shall require TSOs to set out the detailed information needed to comply with the provisions outlined in the target model below.

4.A. TARGET MODEL

4.4. TSOs shall provide, free of charge, to each network user the available information regarding its inputs on to the system and off takes from the system at appropriate intervals during the balancing period in order for network users to be able to balance their portfolios.



4.5. In accordance with Chapter 3 of Annex 1 to Regulation (EC) No 715/2009 (on conditions for access to the natural gas transmission network) TSOs shall publish, per balancing zone, the amount of gas in the transmission system at the start of each gas day and the forecast of the amount of gas in the transmission system at the end of each gas day. The forecast amount of gas for the end of the gas day shall be updated on an hourly basis throughout the gas day. If imbalance charges are calculated on an hourly basis, the transmission system operator shall publish the amount of gas in the transmission system on an hourly basis. Alternatively, transmission system operators shall publish, per balancing zone, the aggregate imbalance position of all users at the start of each balancing period and the forecast of the aggregated imbalance position of all users at the end of each gas day. If the national regulatory authority is satisfied that such information could give room to potential abuse by network users, it may decide to exempt the transmission system operator from this obligation.

5. NETWORK USERS AND TSO ROLES & RESPONSIBILITIES

5.1. The European network code for gas balancing shall provide for network users to balance their portfolios by matching their inputs into and off-takes from each system during the relevant balancing period. The TSOs shall develop network codes that share the responsibilities of balancing between the TSOs and network users, in accordance with the target model and interim steps below. The aim is to provide, as much as possible, for network users to collectively balance their portfolios so as to minimise the need for TSOs balancing actions.

5.2. The network code shall provide for TSOs to be responsible for ensuring that any remaining deviations between the (aggregate) inputs and off-takes of network users do not cause the system to go beyond its accepted operational limits.

5.3. The network code shall require each TSO to consider the impact of their balancing rules on the development of trade with adjoining transmission systems. TSOs shall coordinate balancing activities with other TSOs where this is needed in order to ensure compliance with the general principles in this section (or in order to keep all systems within safe operational limits).



5.4. The network code shall provide for TSOs to allocate linepack to network users if approved by the relevant NRA. TSOs shall allocate the linepack to network users on a transparent and non-discriminatory basis. Where linepack is sold, it shall be offered at a cost reflective price. The price may also be determined through competitive mechanisms. The decision by the relevant NRA to allocate linepack will be based on objective criteria, including the physical characteristics of the networks and whether the provision is consistent with the target model for the balancing period.

5.A. TARGET MODEL

5.5. Network users through their portfolio balancing activities shall take primary responsibility for matching their inputs into a system against customer off-takes from the system during the relevant balancing period. The principle is to reduce the TSO's role in balancing activities as much as possible.

5.6. Network users shall have access to a liquid short-term wholesale gas market or to sources of flexible gas (including the associated infrastructure) to trade in order to be in a position to balance their portfolios. TSOs shall not impose barriers to development of liquid short term markets in the development of their balancing rules.

5.B. INTERIM STEPS

5.7. In the absence of a liquid short-term wholesale gas market or information being updated during the balancing period, or in order to facilitate new entry (including, for example, into the market for non-daily metered customers), imbalance charges may be based on a forecast off take profile (provided by the TSO) and proportionate to deviations between network users' inputs and forecasted off-take profiles day-ahead.

5.8. Groups of network users may be entitled to aggregate their inputs and off-takes within a balancing zone, after the end of the relevant balancing period.



5.9. TSOs may provide network users with tolerance levels that shall reflect genuine system flexibility and user needs and address in particular the needs of small users and new entrants. These tolerances may be free. The level of tolerances allocated to each network user shall be designed so as to not create discrimination, in particular towards network users with smaller gas portfolios.

6. BALANCING PERIODS

6.1. The balancing period reflects the time interval at the end of which network users are subject to imbalance charges for any deviations accumulated over the duration of this interval, between their inputs into and off-takes from the system. In other words, after the balancing period network users will be billed for any imbalance charges and the imbalance of their portfolios shall be set to zero. For the avoidance of doubt, being financially settled <u>after</u> this interval does not preclude network users from engaging in portfolio balancing activities <u>during</u> the interval. This also does not preclude network users from ex-post trading after the balancing period, where this is provided for in national balancing rules as provided for in 5.8.

6.2. ENTSO-G shall develop a gas balancing network code that harmonises the balancing period in accordance with the target model. It shall consult on the cost/ benefit impacts of harmonising the balancing period. This will require a common starting time and ending time of a common gas day. ENTSO-G will also consult on the costs and benefits of implementing the target model.

6.A. TARGET MODEL

6.3. The balancing period determined for a transmission system shall be characterised by a daily interval, at the end of which network users are cashed out for any deviations, as accumulated over the course of the preceding 24 hours, between their inputs and off-takes from the system.



6.4. TSOs may, subject to public consultation and approval by the relevant NRA, implement within-day restrictions on network users, where this is necessary to manage the system. This may apply to customers with large inputs or off-takes (or particular injection profiles). Where such restrictions apply, TSOs may impose on network users an imbalance charge for imbalances in accordance with section 7 of this pilot framework guideline. These restrictions shall not act as a barrier to new network users entering the market or to the development of competitive markets.

6.B. INTERIM STEP

6.5 As an interim step, the balancing period in a particular balancing zone can be any period other than daily, subject to approval by the relevant NRA. This should be reflective of the current and potential future physical characteristics of the relevant system and the connected resources of flexible gas.

7. IMBALANCE CHARGES

7.1. The network codes shall require TSOs to publish transparent methodologies for the calculation of imbalance charges. TSOs shall provide network users regular and detailed information on how any imbalance charges they incurred were calculated.

7.2. The network codes shall require TSOs to charge separately imbalance charges from other transmission charges. Imbalance charges shall be reflective of the costs incurred by the TSO in buying gas and balancing services (or the revenues received by the TSO in selling gas) to the extent this is possible. Imbalance charges shall be levied on the network users that contributed to the imbalances. Only costs incurred by TSOs, undertaking balancing activities that are not directly attributable to a network user causing imbalances may be shared across all network users. Imbalance charges shall be targeted on the network users contributing to the imbalance and therefore shall not include other charges.



7.3. The network codes shall require TSOs to have in place imbalance charges that provide appropriate incentives on network users to balance their portfolios, without deterring new market entry or impeding the development of competitive markets.

7.4. The purpose of such incentives is to ensure that network users are incentivised to undertake portfolio balancing activities and potentially avoid incurring imbalance charges, which minimises the need for the TSO to undertake balancing activities

7.5. The network code shall require TSOs to have in place imbalance charges that are consistent with the target model or the interim steps.

7.A. TARGET MODEL

7.6. Where TSOs use either the wholesale market or a balancing platform to buy balancing gas, the imbalance charges shall be based on the marginal price paid by the TSO. Where TSOs use the wholesale market or a balancing platform to sell balancing gas, the imbalance charge shall be based on the marginal price paid to the TSO. The principle is that this will provide network users with economic incentives to balance their portfolios.

7.7. Such imbalance charges when applied to individual network users may reflect whether the network user's imbalance contributes to the overall imbalance on the system or helps to reduce the overall system imbalance. The principle would be that the imbalance charges of network users that contribute to the system imbalance should reflect the balancing actions taken by the TSO in accordance with 7.6. above. The imbalance charge of network users whose imbalance helps to reduce the system imbalance would be based on the price in the wholesale market. The imbalance charge may also include a small uplift in order to incentivise the network users to balance their portfolios. This uplift shall not deter market entry or impede the development of competitive markets.



7.8. Where no balancing action is taken by the TSO, the imbalance charge shall be based on the price on the wholesale market. It may include a small uplift in order to incentivise the network users to balance their portfolios. This uplift shall not deter market entry or impede the development of competitive markets.

7.B. INTERIM STEPS

7.9. Where there is no liquid wholesale gas market or balancing platform for the TSO to procure balancing gas, the imbalance charge may be based on a proxy. This proxy may be based on the prices in different wholesale gas markets. The imbalance charge may include a small uplift in order to incentivise the network users to balance their portfolios.

7.10. This charge should not deter new market entry and must be approved by the relevant NRA. It should still provide an incentive for the network user to balance its portfolio.

8. BUYING AND SELLING OF FLEXIBLE GAS AND BALANCING SERVICES BY TSOs

8.1. In order for TSOs to ensure that the system is kept within safe operational limits, they need to be able to buy and sell gas and may also need to be able to buy balancing services.

8.2. The network codes shall require TSOs' procurement and sale of gas to be market-based. As such, TSOs should use the wholesale gas market or market-based mechanisms (such as balancing platforms) to procure gas in a transparent and non-discriminatory way.



8.3. The network codes shall require TSOs to procure flexible gas and related balancing services in a way that helps minimise the cost of balancing the system. For the procurement of flexible gas, they shall accept the lowest priced offers or highest priced bids (in other words to trade as close to the market price as possible). TSOs shall be cost neutral in relation to their balancing activities but NRAs may incentivise TSOs to procure efficiently by allowing them to retain a certain amount of revenue if balancing costs are minimised to a certain level, or require them to bear some of the costs if these are above a certain amount.

8.A. TARGET MODEL

8.4. TSOs shall procure the gas they need to ensure gas transmission systems are in balance through buying and selling gas in the wholesale gas market on an equal footing with network users.

8.5. As such, a necessary pre-requisite is that the wholesale market offers sufficient liquidity for the relevant balancing zones.

8.6. Where the wholesale market is insufficiently liquid, balancing platforms shall be used for the procurement of the TSO's gas balancing needs. Balancing platforms may also be used when there is a liquid wholesale market, subject to approval by the NRA. When using balancing platforms TSOs shall buy and sell flexible gas transparently and on a non-discriminatory basis through a system of bids and offers in a balancing platform. Any network user shall be able to participate in the platform on an anonymous basis.

8.7. TSOs shall buy or sell short-term flexible gas products on the wholesale market or on the balancing platform (as the case may be), such as day-ahead and/or within day gas products. ENTSO-G shall define these products and related balancing services in the gas balancing network code,



8.B. INTERIM STEPS

8.8. Where a wholesale market is insufficiently liquid, the network codes shall provide for TSOs to procure a certain share of their flexible gas on the wholesale market or on a balancing platform. This shall be without prejudice to the application of the provisions in 8.9 and 8.10 below. TSOs shall specify the share in their national balancing rules, which shall be appropriate to the resources of flexible gas available.

8.9. Where there are not sufficient parties that can provide balancing gas through wholesale gas markets or balancing platforms competitive tendering processes may be used to procure long term flexible gas products. In this case, the tendering processes should be conducted on a transparent and non-discriminatory basis.

8.10. Exceptionally, where a Member State relies on one source of flexible gas, the TSO may enter into a bilateral contract with the provider of the flexible gas. The price of this contract should be cost-based. The price and the terms and conditions of this contract should be published and approved by the relevant NRA.

8.11. Where long term contracts for the procurement of flexible gas are already in place, the network codes shall provide for TSOs to release back to the market any surplus gas which is not required for its balancing purposes in any given balancing period, in order that network users have access to greater volumes of flexible gas. In order to finalise the network codes, ENTSO-G shall consult on the rules for procedure for the release of flexible gas.

9. CROSS-BORDER COOPERATION

9.1. If the balancing arrangements of adjacent balancing zones are sufficiently harmonised the network code shall require relevant TSOs to cooperate in order to merge balancing zones and create a cross-border balancing zone wherever this is technically feasible and economically reasonable.



9.2. For that purpose relevant TSOs shall consult on the design of the cross-border balancing zone, including an impact assessment of the expected costs and benefits and on the timeline for completion. The proposal shall be subject to approval by the relevant NRAs.

9.3. The European network code shall require ENTSO-G to regularly review the progress of harmonisation of rules in adjacent balancing zones in order to identify possible mergers of balancing zones and thereby, the creation of cross-border balancing zones. The review will also consider whether there are additional measures needed to harmonise rules, which may facilitate the achievement of cross-border balancing zones.

9.4. The network code shall include proposals for cross-border balancing rules. Cross-border balancing may be an interim step, which enhances cross-border trade in the absence of sufficient harmonisation to create cross-border balancing zones. The proposals shall establish:

- shipper-led cross-border portfolio balancing, which would allow network users to net their imbalances between cross-border neighbouring balancing zones; this shall be without prejudice to a fair allocation of balancing costs among network users of interconnected balancing zones; and

- cross-border TSO balancing, which would allow TSOs to act as intermediaries to facilitate access to flexible gas in neighbouring markets.

9.5. The cross-border balancing arrangements in the network code shall be based on the results of a public consultation, which shall include a cost/ benefit impact assessment of the options for cross-border balancing.

9.6. ENTSO-G shall share the results of its consultation with ACER and the NRAs.

9.7. The network code shall also require TSOs to implement Operational Balancing Accounts (OBAs) with adjacent TSOs to address steering differences. This shall eliminate the balancing risk for network users purely transporting gas through one or more balancing zones to another balancing zone.



9.8. These requirements shall not prevent TSOs in any of the gas regions (as defined in the European regional initiatives) from bringing forward or consulting on proposals to merge balancing zones or for cross-border balancing in the meantime.

10. COMPLIANCE

10.1. Once the network code is adopted, TSOs shall comply with the target model or the interim steps defined in the framework guidelines within 12 months. This includes the adaptation of existing contracts and, where relevant, national network codes. TSOs shall comply with the target model unless the NRA confirms that market conditions do not allow this.