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**COMMISSION STAFF WORKING DOCUMENT**  
**EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT**

*Accompanying the document*

**Commission Regulation (EU) No .../..**

**establishing a Network Code on Gas Balancing of Transmission Networks**

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## **1. INTRODUCTION**

For operational security reasons, pressures of gas in transmission systems need to be kept within a certain range. As such, it is important that the volume of gas exiting the gas transmission system equals the volume of gas being put into the transmission system.

A market based balancing regime requires the transmission system operators (TSOs) to maximise the amount of their gas balancing needs to be fulfilled through the buying and selling of short-term standardised products on the wholesale market while only carrying out residual balancing. At the same time the network users have the financial responsibility for the balancing of the transmission system and will be incentivised to balance their portfolios. This will foster the short term gas market and provide price signals as well as contribute to the development of a competitive and efficient gas wholesale market in Europe.

## **2. PROBLEM DESCRIPTION**

- In some Member States network users have currently no requirement nor possibility to trade gas intraday inside and entry exit system at the so called virtual trading point in order to balance their portfolio.
- Some approaches of TSOs procuring or selling gas for balancing purposes, as well as significant differences between within day gas products can inhibit the trading of flexible gas between national markets.
- Different nomination regimes may hinder cross-border trade as shippers face different flexibility and differing risks at different borders, also resulting in higher administrative costs for cross-border shippers having to implement and cope with various regimes.
- In some Member States shippers may face artificially increased imbalance charges (implicit penalties) resulting in an increased risk for smaller shippers to enter a market.
- Differences in the balancing period and within-day obligations may create arbitrage opportunities for network users between markets with different balancing regimes. In markets with low levels of flexibility, a within-day obligation may cause a significant risk for new entrants.
- In some Member States network users do not have regular information on their inputs and their off-takes and are unaware of whether their portfolio is in balance.

## **3. OBJECTIVES**

- Improve competitiveness in the gas market, especially in promoting competition in emerging markets

- Increase liquidity at the gas wholesale markets
- Removal of barriers to cross-border gas trade
- Transparent and non-discriminatory rules in gas balancing
- Allow for a transparent and cost reflective price to emerge for the TSO's balancing actions

#### **4. LEGAL BASE AND SUBSIDIARITY PRINCIPLE**

The right of the EU to provide a more detailed regulation on balancing (BAL) in gas transmission systems in the form of binding EU network codes (NC) is set out in Article 8(6)(j) of the Gas Regulation.

There are significant variations in the amount of flexible gas available in different systems and of gas needed to balance the various systems in different Member States. These national differences will be taken into account in the NC BAL which will provide for the possibility of interim measures to be taken and for the possibility to apply within-day obligations in case strict criteria set in the rules are met.

TSOs and Distribution System Operators (DSOs) need to cooperate in developing and implementing the NC BAL. It will apply directly to DSOs but will only harmonise DSOs' roles to the extent necessary to implement the principles set out in the NC BAL.

#### **5. POLICY OPTIONS**

##### **5.1. Option 1: no further EU action**

This policy option does not foresee any further rules on gas balancing in transmission systems beyond what has already been enshrined in the Gas Regulation, including the Guidelines on Congestion Management Procedures and the Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems.

##### **5.2. Option 2: harmonized EU rules on balancing that allow for interim measures and differences**

Option 2 provides for harmonised rules for a market based balancing regime that enable network users to trade gas efficiently, including across borders. Still the option 2 leaves room for national specificity where this better achieves the objectives, whilst ensuring that such specific arrangements do not go against the objectives of gas balancing arrangements. The application of interim steps should help ensuring that the rules are sufficiently ambitious and at the same time achievable across the European Union.

The core measures under option 2 are:

**Virtual Trading Points:** Allow network users to transfer gas between two portfolios within one balancing zone through trade notifications.

**Market based Operational Balancing:** A market based balancing regime hands network users the financial responsibility for the balancing of the transmission system

by incentivising them to balance their portfolios. The TSOs need to maximise the amount of their gas balancing needs through the buying and selling of short-term standardised products on the wholesale market, whilst limiting the procurement of balancing services to residual balancing.

**Nominations:** Harmonisation of the timing and requirements of nominations and foreseeing the possibility for network users to re-nominate.

**Imbalance charges:** Harmonised principles to calculate the imbalance charges in the balancing zone would be introduced and foreseen that the imbalance charge is based on the Marginal Price buy/sell price. A 10% cap on the small adjustment would ensure that network users are not exposed to punitive undue imbalance prices.

**Daily balancing period with exceptional within day obligations:** The balancing period will be standardised to a daily interval while still allowing the application of within-day obligations under exceptional circumstances.

**Information:** TSOs, with the cooperation of Distribution System Operators (DSOs), are required to publish the aggregate network user input and off-take information in a clear and 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.

In the absence of sufficient liquidity of the short term wholesale gas market which is a pre-requisite for a market based balancing regime, suitable interim measures may need to be implemented by the transmission system operators. Balancing actions undertaken by the transmission system operator in case of interim measures shall foster the liquidity of the short term wholesale gas market to the extent possible.

The interim measures contained in the option 2 are:

**Roadmaps and progressive steps:** Where interim measures are implemented, every twelve months, the TSOs concerned shall submit for the approval of the competent national regulatory authority a report updating the appropriate parts of the roadmap.

**Balancing platforms:** Where the short term wholesale gas market has or is anticipated to have insufficient liquidity or where temporal products and locational products required by the transmission system operator cannot reasonably be procured on this market, a balancing platform shall be established for the purpose of transmission system operator balancing.

**Release of surplus flexible gas:** Where long term contracts for the procurement of flexibility provide the TSO with a right to off-take or deliver specified volumes of gas, the TSO will have to reduce these amounts of flexibility.

**Imbalance charge calculation:** In case interim measures like balancing platforms and the release of flexible gas are introduced, the price to calculate the imbalance charges may be based upon an administered price, a proxy for a market price or derived from balancing platform trades.

**Tolerances on imbalance quantity:** In case network users do not have access to i) a short term wholesale gas market that has sufficient liquidity or short term flexible gas or ii) sufficient information regarding their inputs and off-takes, tolerances with regard to shippers' daily imbalance quantity can be applied..

### **5.3. Option 3: Detailed harmonised balancing rules without room for national arrangements or interim steps**

**Virtual Trading Points:** same as option 2.

**Market based Operational Balancing:** DSOs would be included in the Balancing Zone in all EU Member States. The use of long-term products would be excluded. The TSO would be required to only maximise the amount of their flexible gas to be fulfilled through the buying and selling of short-term standardised products on the wholesale market.

**Nominations:** The principle of allowing profiled nominations and daily flat nominations as proposed in option 2 would also need to be harmonized to achieve full matching of the systems.

**Imbalance charges:** An EU-wide fully harmonised methodology to calculate imbalance prices and the small adjustment would be introduced across the EU.

**Daily balancing period:** The balancing period for a balancing zone would be a standardised daily interval, at the end of which network users are financially settled for any deviations, as accumulated over the course of the preceding 24 hours, between their inputs in to and off-takes from the balancing zone. The introduction of within day obligations would be prohibited.

**Information:** There would be detailed rules regarding the information that needs to be published by TSOs. This may in turn require significant investments to be undertaken across Europe and – most importantly – that the role of DSOs would need to be the same in each entry-exit zone.

**EU-wide balancing zone:** Under this option, TSOs would be required to cooperate in order to integrate European gas markets into one EU-wide balancing zone.

## **6. EVALUATION OF OPTIONS**

The Commission services propose to pursue option 2.

Whilst Option 1 may at the outset be perceived as being less onerous than to implement harmonised balancing arrangements, it may also create significant inefficiencies in policy development. Importantly the administrative burden of keeping different national balancing regimes increases for TSOs, DSOs and network users with deepening market integration. More importantly, option 1 would not foster the liquidity of the European gas market and therefore hinder the development of competitive energy prices, something that is essential in maintaining the competitiveness for Europe's industries, in particular in Member States where currently there are not many actors trading gas at the virtual trading point. It has been shown in the past that EU Member States with well-developed trading systems have not only enjoyed the benefit of greater price stability, but the prices of piped gas imported under long-term contracts in these markets have also been lower. The experience shows that in case of contentious issues, opposing national models and approaches, even between adjacent Member States, may not be resolved easily or could be resolved only over a lengthy period of time. The resulting barriers to cross border trade are vital and would significantly delay the integration of European gas

markets beyond 2014. Therefore, the Commission agrees with stakeholders that European wide binding rules on balancing are necessary in order to integrate the European gas market. Therefore option 1 is not appropriate to be pursued.

Option 3 differs from Option 2 in that it envisages going further and faster in harmonisation of balancing rules. Even though there is a general support by stakeholders to harmonise the rules for TSOs and network users across Europe, there is a significant opposition against harmonising the rules for DSOs. The harmonisation of the rules for DSOs may be costly and many expressed a preference for only those issues to be harmonised which are needed for the introduction of market-based balancing regimes. Reviewing national balancing systems completely would require much longer implementation times and would raise the complexity significantly. Introducing identical rules for the procurement of balancing services could be beneficial for competition, if they are market-based. TSO procurement on the wholesale market could deliver significant benefits, but it needs to be acknowledged that currently this is not realistic in all European balancing zones. This could mean that, in order to ensure identical rules, less market-based mechanisms would need to be considered which may actually reduce competition in those markets where the TSO is already procuring balancing services on the wholesale market. Introducing identical rules for TSO procurement without interim steps would only be feasible across Europe if these rules allow for bilateral contracts. This would be a step back for some European balancing zones and its potential to increase costs incurred by the TSO could be significant. Furthermore if a single EU balancing zone was to coincide with a single entry-exit system, large amounts of capacities would have to be created to remove EU internal bottlenecks and to allow for at least a minimal offer of “freely allocable capacities” for such a large geographical zone, involving significant investment costs for TSOs, the benefits of which are unclear. Implementing a daily balancing regime will facilitate market integration. Still a purely daily balancing regime could create costs and cross-subsidies in systems with low levels of line pack or other sources of flexible gas, particularly in relation to customers with potentially significant swings in gas off-takes (i.e. electricity power stations). As the use of renewable sources of electricity increases, this may create new challenges for future gas balancing regimes.

Option 2 strikes the balance between costs and benefits and places the short term gas wholesale markets at the heart of network users' portfolio balancing and TSO network balancing. This will have a positive impact on the liquidity of these markets. In Member States where gas markets are not liquid yet, option 2 provides for interim tools to do so. Standardisation of short term products will likely result in greater cross border trade as arbitrage opportunities are easier to capture and therefore foster market based balancing. It furthermore addresses all the core issues raised by stakeholders with regard to nominations, while providing the features required for implementing a harmonised balancing regime and facilitating the implementation of the NC CAM and NC BAL. It also supports the functioning of the virtual trading points which is necessary to deliver liquidity at gas markets and fostering cross border trade. Option 2 also strikes the balance between cost-reflectivity of imbalance charges, while still incentivising network users to balance their portfolio. It will facilitate gas market integration by removing the main differences in balancing periods but still allowing the application of within-day obligations under exceptional circumstances. The design of a within-day obligation will be dependent on the

infrastructure in place to provide network users the necessary information to be compliant with the respective obligation. Option 2 sets out minimum requirements for information provision that are needed to implement a market based daily balancing regime. Beyond these minimum information requirements, there may be additional ones needed which will be assessed on a national level in order to not create inefficient costs. Standardisation of short term products will likely result in greater cross border intraday trade as arbitrage opportunities are easier to capture and therefore foster a EU-wide market based balancing. It will be easier for new entrants to enter the market without having to invest in additional balancing services such as storage contracts.



Table 1: The table indicates the scoring of the various options on the impact assessment criteria.

	Economic			Social	Environment	Public consultation support
	Facilitate competition	Transparency and non-discrimination	Administrative burden			
<b>Option 1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Option 2</b>	++	++	-	0/+	0/+	++
<b>Option 3</b>	+	++	--	0/+	0/+	-

Table 2: The table compares the policy options in terms of their effectiveness, efficiency and coherence of responding to specific criteria.

Specific objective	Option 1	Option 2	Option 3
Improve competitiveness in the gas market, especially in promoting competition in emerging markets	<b>0</b>	++	-
Increase liquidity at the gas wholesale markets	<b>0</b>	++	+
Removal of barriers to cross-border gas trade	<b>0</b>	++	+
Transparent and non-discriminatory rules in gas balancing	<b>0</b>	++	++
Allow for a transparent and cost reflective price to emerge for the TSO's balancing actions	<b>0</b>	+	+
Improve implementation of market-based balancing regimes in order to reduce inefficiencies	<b>0</b>	++	+

## **7. MONITORING AND EVALUATION**

Core indicators of progress in the field of improved balancing in gas transmission systems are:

- Improved liquidity on the gas wholesale markets
- Increased trading at the intraday gas market,
- Increased number of active shippers and traders on the market.
- Increased trading at the virtual trading points
- Better price convergence between gas markets
- Market based pricing for flexible gas

Article 9(1) of the Gas Regulation tasks ACER with the monitoring of all the Network Codes. ACER can be assisted by ENTSOG where needed on the basis of article 8(9). The individual TSOs are obliged to cooperate with ENTSOG according to Article 4. Article 41 of the Gas Directive 73/2009/EC foresees very broad monitoring rights and duties for NRAs.