Supporting Document for Public Consultation on the Draft Code on Balancing

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Table of contents

1. Introduction 3

2. How to respond to this consultation 5

3. Procedural background and prior consultation with stakeholders 6

4. Policy context for development of the Draft Code 8

5. Specific issues (by topic chapter in the Draft Code) 10

6. General issues 94

Annex 1 – Summary of consultation questions 95

Annex 2 – External stakeholders 102

1. Introduction

This consultation supporting document accompanies the Draft Code on Balancing, Ref. BAL300-12 (hereinafter 'the Draft Code'). This supporting material was developed for the purpose of the public consultation pursuant to Article 10 of the Regulation (EC) 715/2009[1] (hereafter "the Regulation") and Article 28 of ENTSOG internal Rules of Procedure[2] to be handled during the preparation of a network code.

On 4 November 2011, ENTSOG was invited to submit a network code on gas balancing in transmission systems (hereafter 'the Balancing Network Code') which is in line with the Framework Guidelines on Gas Balancing in Transmission Systems (hereafter "the FGs"), issued by the Agency for the Cooperation of Energy Regulators (ACER) on 18 October 2011 (ref. FGSB-2011-G-002) to ACER by 5 November 2012.

Pursuant to Article 21 of the Regulation, "balancing rules shall be designed in a fair, non-discriminatory and transparent manner and shall be based on objective criteria." In this context, ENTSOG has produced this supporting document to record how it arrived at the key policy choices comprising the Draft Code with input from ENTSOG members via its Balancing Working Group and from external stakeholders via the **stakeholder joint workshops (SJWSs) held regularly between October 2011 and March 2012**. **The materials from latter are referenced throughout this supporting document and should be read in conjunction with it** [see the "Code development" and "Business Rules" sections on http://www.entsog.eu/publications/balancing.html].

ENTSOG highlights that the Draft Code and the supporting document do not contain any commitment or representation of any nature from ENTSOG as to the content of the final Balancing Network Code. In fact, the Draft Code should be considered a collective effort of: ENTSOG; a group of cooperating distribution system operators (DSOs)[3], as required by Article 10 of the Regulation; a group of 'prime mover' industry representatives[4] and other external stakeholders [see Annex 2].

This supporting document also serves as an ENTSOG consultation document, as it invites respondents to provide views on issues raised throughout the document as part of the consultation on the Draft Code.

For the avoidance of doubt, the Supporting Document for Public Consultation should not be construed as part of the Balancing Network Code to be delivered to ACER in November 2012.

The Supporting Document for Consultation is publicly disclosed to the market here for consultation purposes only and without any commitment whatsoever from ENTSOG, as already mentioned, as to the final content of the Balancing Network Code. Any and all interested parties, in their capacity as professional stakeholder, shall be responsible for seeking to obtain the accurate and relevant information needed for their own assessment and decision to respond to the consultation.

ENTSOG hereby disclaim all responsibility for changes to the Draft Code as presented. Such changes may result from, among others, this public consultation and the eventual comitology procedure.

[1] Regulation (EC) No 715/2009 of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005, *Official Journal*, L211/36, 14 .08.2009.
[2] ENTSOG, Rules of Procedure of the International Non-Profit Association (AISBL) European Network of Transmission System Operators for Gas," established 1 December 20009, last amended 15 February 2012.
[3] Volunteer representatives from 12 companies identified separately to the public consultation on project plan.
[4] ENTSOG "Conclusions from the Public Consultation on the Project Plan for the Balancing Network Code," (Ref. BAL138-11), 8 December 2011.

Additionally, the content of the Draft Code and Supporting Document for Public Consultation should not be considered to give rise to any specific right or obligation whatsoever to ENTSOG or any of its Member as to any stakeholder.

ENTSOG has sought to produce a supporting document which is both useful and relevant for respondents to the consultations and observers of the policy-making process. The structure and layout has been developed to facilitate reading and reference.

ENTSOG welcomes responses to this public consultation on the Draft Code and will consider all views submitted. Please see the following section for response submission details.

ENTSOG is fully committed to the harmonisation of the European gas market and would like to thank those market participants, who have contributed to date to the development of the Draft Code. We hope that the publication of the Draft Code, together with this supporting document, will prove a valuable step towards a workable, agreed set of rules that will significantly improve the functioning of the market.

2. How to respond to this consultation

ENTSOG welcomes all comment on the Draft Code -- in particular, replies to the specific questions which are raised throughout this document [see Annex 1 for a summary list].

To enable ENTSOG to consider responses as fully as possible, we would be grateful if respondents could:

- consider fully this document, the Draft Code (Ref. BAL300-12) and the materials from the stakeholder joint workshops;
- provide responses that are as focused and succinct as possible; and
- provide full reasoning and supporting quantitative and/or qualitative evidence (where available) for responses.

If you wish any part of your response submission to be treated as confidential, please mark these sections of your document clearly. Please note, however, that ENTSOG's approach to developing the Draft Code relies heavily on transparent exchange of views across market participants. We would encourage you to allow your full response to be made public, unless this is not possible for due to the inclusion of commercially or otherwise sensitive information.

Please use the Consultation Response Form (in Microsoft Word format), provided in ENTSOG document BAL279-12. Please restrict your replies to the question boxes, attaching and referring to appendices as needed. Respondents are not required, though, to reply to all questions within.

Please send your response via email using the subject, "Response to the Draft Code on Balancing consultation" to info@entsog.eu by 17:00CET on 12 June 2012. Please note that in sending your response by email, you will be confirming that ENTSOG can disregard any standard e-mail text about not disclosing email contents and attachments.

Any questions regarding the Draft Code or this supporting document can be sent to the same email address. Respondents also will have the opportunity to seek clarification on these documents at a consultation workshop to be held in Brussels on 9 May 2012. Initial views from respondents could also be expressed at the workshop.

After the closure of this consultation, ENTSOG will hold a stakeholder workshop where a summary of consultation responses received will be presented and where stakeholders can voice their final positions on key elements of the Draft Code. This workshop will be held on 26 July 2012.

3. Procedural background and prior consultation with stakeholders

3.1 Organisation and timing

The Draft Code and this supporting document has been prepared by ENTSOG, an organisation currently comprising 40 transmission system operators from 23 European countries, in line with its duties under Article 6 of Regulation.

As mentioned in the introduction, pursuant to the invitation letter received by ENTSOG, the Balancing Network Code must be delivered to ACER by 5 November 2012.

3.2 Consultation and expertise

In line with its internal process and in compliance with the Regulation, ENTSOG has engaged extensively with market participants and participated in events in order to publicise the process and encourage full stakeholder involvement.

In the network code project plan consultation5, all market participants were invited to register to participate in the process of developing the Draft Code. Stakeholders6, representing all levels of the gas value chain including producers, traders, network users and end users, expressed strong support for ENTSOG's proposed process.

Throughout the code development process to date, stakeholders have also expressed their appreciation for the transparency of the process and the high level of consultation within: a pre-FGs public consultation on project plan (started 1 October 2011); a consultation on project plan (4-16 October 2011); a launch workshop, including pre-event Launch Documentation, 13-14 December 2011; stakeholder joint workshops - SJWS1, 11-12 January 2012; SJWS2, 26 January 2012; SJWS3, 9 February 2012; SJWS4, 23 February 2012; SJWS5, 7-8 March 2012.

Additionally, ENTSOG has held regular working level discussions with ACER and the European Commission (EC) in order to clarify the intent of the Regulation and the FGs. It has aimed to ensure, as far as possible, that the Draft Code and eventual Balancing Network Code are compliant with the provisions of the Regulation and in line with the FGs. It should also remain robust, technically and legally workable and supported by stakeholders. It also should contribute to non-discrimination, effective competition and efficient functioning of the market (as per Article 6(2) of the Regulation).

3.3 Stakeholder views

In accordance with the Regulation and ENTSOG's statutes, stakeholders' views have been integral to the decisions made during the development of the network code and as such are described throughout this document when describing the rationale for the options selected.

Detailed information on the stakeholder comments received is published on the ENTSOG website.

3.4 Planning and next steps

Responses to this consultation will help to determine the final approach taken by ENTSOG when formulating a revised Draft Code.

Key dates for the finalisation of the Balancing Network Code can be found in the table below.

[5] ENTSOG, Project Plan Developing the Network Code on Gas Balancing, BAL092-12, 4 November 2011.
[6] See footnote 4.

Table 1: Key dates in the process to finalise the Draft Code[7]

13 April 2012	Public consultation on the Draft Code launched
9 May 2012	Mid-consultation workshop
12 June 2012	Deadline for responses to the public consultation
26 July 2012	Post-consultation workshop
22 August 2012	Code and supporting document published; Stakeholder Support process starts
4 September 2012	Stakeholder Support process ends
5 November 2012	Final ENTSOG-drafted Code submitted to ACER

[7] The dates of the workshops associated with the public consultation were changed from the original work plan from 24 April to 9 May and 31 July to 26 July.

4. Policy context for development of the Draft Code

The optimal formulation of an EU-level balancing regime depends on the rules applying in a range of other areas. Therefore, in developing the Draft Code, ENTSOG has had to make assumptions about the eventual text of these rules in the other areas in order so that the Code is sufficiently specific for immediate application upon its entry into force. Any change or deviation from such assumptions affecting provisions of the Draft Code will as a consequence require adjustment to the extent necessary.

In light of the above, ENTSOG cannot guarantee that the eventually adopted Balancing Network Code will not require adjustment should any change render the framework set out in it no longer appropriate. In this case, the adopted network code will have to be amended through the appropriate processes accordingly.

ENTSOG has already identified areas in which changes may affect the eventual Balancing Network Code, as currently drafted, including:

4.1. Nominations elements of EC-planned network code on Interoperability

In the development of the Draft Code, ENTSOG and stakeholders came to the view that its implementation would not be possible without a basic nominations (respectively re-nominations) rules being adopted and implemented concurrently. The EU-rules for nominations (respectively re-nominations) were foreseen by the EC to be a part of the planned network code on interoperability for which ACER's formulation of the framework guidelines[8] is still in progress. In this context, ENTSOG made an inquiry to ACER, requesting that some elements of the foreseen EU-defined nominations (respectively re-nominations) rules be included in Balancing Network Code.

In a written exchange with ENTSOG and the EC on 2 February 2012[9], ACER invited ENTSOG to include nomination rules in the Balancing Network Code. *"This should take into account,"* ACER said, *"stakeholder input, analysis of what the issues are (particularly in relation to the Balancing FG objectives and cross-border trade) and any other relevant interactions, including with capacity auctions (CAM), as well as the requirements of the balancing regime (including network users' requirements). We would expect this to result in a proposal for harmonised renomination and nomination rules and lead times."*

In light of this new guidance from ACER, ENTSOG increased the scope of the Draft Code to include nomination rules. ENTSOG assumes that doing so will not be considered as a deviation from the FGs by ACER or the EC but a necessary complement.

The nominations (respectively re-nominations section of the planned network code on interoperability will complement the Draft Code by addressing the operational processes and data exchange needed to underpin the nominations (respectively re-nominations) rules to be included in the eventual network code on interoperability.

ENTSOG's project team for the Draft Code (and relevant kernel groups in the Balancing Working Group) began and continue to work with the project team for the expected network code on interoperability (and relevant kernel groups in the Interoperability Working Group) on nominations (respectively re-nominations) rules. This is expected to ensure consistency between the nominations

[8] ACER, "Draft Framework Guidelines on Interoperability and Data Exchange Rules for European Gas Transmission Networks – for Public Consultation" (Ref. FGI-2012-G-003), 16 March 2012.
[9] Extract from e-mail message from Konrad Keyserlink, co-chairperson of ACER's Gas Balancing project team, to Nigel Sisman, ENTSOG, 2 February 2012; policy officers of the European Commission (Directorate-General for Energy, Unit B.2) were put in copy.

(respectively re-nominations) rules in this Draft Code and the eventual draft network code on interoperability.

4.2. Interactions with the capacity allocation mechanism (CAM) and capacity management procedures (CMP) network codes

With nominations (respectively re-nominations) being included in the Draft Code [see section 4.1.] and nominations (respectively re-nominations) being an element of the CAM Network Code[10], interdependency has been created between the two draft codes. In addition, the Guideline on Congestion Management Procedures, currently passing through the legislative process, will likely have implications and/or interactions with both balancing and CAM.

As regards the draft CAM Network Code, there are clear interactions between the timing of day-ahead and within-day capacity auctions, the impact of CMP and the schedule of initial nominations and re-nominations. These are explored below in section 6.7.

4.3. Interactions with other network codes or EC initiatives

The interactions between EC guidelines and the network codes will become more numerous as work continues towards the completion of all areas of work envisaged in the Regulation. Ensuring coherence and consistency across all developments will therefore become more challenging.

ENTSOG looks forward to working with the EC, ACER and wider stakeholders to ensure viable, implementable rules that minimise the risk of adverse unintended consequences.

[10] ENTSOG, "Network Code on Capacity Allocation Mechanisms - An ENTSOG Network Code for ACER review and Comitology Procedure" (Ref. CAP210-12), 6 March 2012.

5. Specific issues (by topic chapter in the Draft Code)

The sections of this chapter are numbered in relation to the chapters in the Draft Code. For example, section 5.1 relates to Chapter I – General Provisions in the Draft Code; section 5.2 relates to Chapter II – Balancing System; etc.

In each section, and thus for each chapter of the Draft Code, we provide:

- A: the corresponding extracts from the FGs to which the chapter is aligned
- B: "Background to Draft Code formulation" comprising where relevant: an interpretation of the FGs; the policy option(s) and approach(es) considered and analysed; the rationale for preferred policy option(s) included in the Draft Code; and any open issues and questions for public consultation.

Questions are raised in the course of the explanation found in subsection B, highlighted to draw attention. Within the reader will also find topic boxes, framed in green, on concepts and issues of relevance for the chapter.

The terms and definitions applied within the Draft Code, referenced in this supporting document, are those in the Regulation and the Directive 2009/73/EC[11] (hereinafter the "Directive") except where specified in Annex I of the Draft Code.

5.1. GENERAL PROVISIONS

A. Corresponding extracts from FGs

For the purposes of the developing Chapter I – General Provisions for the broader Draft Code, the key sections of the FGs are the following:

> **1.2. Scope**
>
> These Framework Guidelines aim at setting out clear and objective principles for the development of a network code on gas balancing as required by Article 6(2) of Regulation 715/2009 (the "Gas Regulation").
>
> The network code on gas balancing will apply to balancing regimes within EU borders. TSOs and Distribution System Operators (DSOs) shall cooperate in developing and implementing the network code, which will apply directly to DSOs where appropriate but will only harmonise DSOs' roles to the extent necessary to implement the principles set out in these Framework Guidelines. ENTSOG shall involve DSOs in the drafting of relevant sections of the network code, adopting an efficient process of engagement through organisations representing DSOs at a European or, where appropriate, national level.
>
> The network code on gas balancing will also apply 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.
>
> …
>
> The network code(s) adopted according to these Framework Guidelines will be evaluated by

[11] Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, *Official Journal*, L211/94, 14.8.2009.

ACER, taking into account their degree of compliance with the Framework Guidelines and the fulfilment of the objectives: maintaining security of supply, supporting the completion and functioning of the internal market in gas and cross-border trade, including delivering benefits to the customers.

1.3. Objective

The network code which is developed on the basis of these Framework Guidelines shall define a European gas balancing regime which is market based and enables network users to trade gas efficiently, including across borders.

In fact, the over-arching objective of the network code on gas balancing is to promote the harmonisation of balancing regimes in order to encourage and facilitate gas trading across systems and to support the development of competition within the EU, both between Member States and within each Member State, and thereby move towards greater market integration.

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)(j) of the Gas Regulation.

The network code on gas balancing shall also have regard to the requirements in Article 21 of the Gas Regulation, i.e. it shall define balancing rules that are fair, non-discriminatory, based on objective criteria and which are market-based while reflecting the resources available to the TSO.

1.5. Implementation

…The network code on gas balancing shall therefore define balancing rules that are consistent with the ultimate goal of a common balancing regime…

Member States may put in place additional gas balancing arrangements that shall apply during an emergency (as defined in Article 10(3)(c) of Regulation (EC) No 994/20108 concerning measures to safeguard security of gas supply). Some guidance on these additional arrangements is already provided in that Regulation and more guidance will eventually be provided in the network code on operational procedures in an emergency (according to Article 8(6)(f) of the Gas Regulation).

B. Background to Draft Code formulation

The scope for Draft Code to be formulated by ENTSOG is based on the FGs, established pursuant to the Regulation. This section contains generic legal provisions deemed necessary due to the nature of the document and its scope.

ENTSOG does not pose any consultation questions on this chapter on the Draft Code, deferring to the substantive topic chapters which follow.

5.2. BALANCING SYSTEM

A. Corresponding extracts from FGs

For the purposes of the developing Chapter II – Balancing System in the Draft Code, the key sections of the FGs are the following:

> **2. Principles for network users and TSO roles and responsibilities**
>
> **2.1. General provisions**
>
> The network code on gas balancing shall provide for network users to balance their portfolios by matching their inputs into and off-takes from each balancing zone during the relevant balancing period. The network code shall provide that balancing responsibilities are shared between the TSOs and network users, in accordance with the requirements specified below….
>
> The network code on gas balancing shall set out that network users, through their portfolio balancing activities, shall take primary responsibility for matching their inputs against their customers' off-takes from the balancing zone during the relevant balancing period. The principle is to provide, as much as possible, for network users to balance their individual portfolios which is likely to minimise the need for TSOs' balancing actions.
>
> The network code on gas balancing shall require that TSOs, during its implementation, shall not impose barriers to the development of liquid short term wholesale markets.

B. Background to Draft Code formulation and consultation questions

1. Network users and TSO roles and responsibilities

Balancing responsibilities

The responsibility for balancing the Transmission System (i.e. keeping the Transmission System within an acceptable operational envelope by managing entry and exit flows and the distribution of gas within the transmission network) is to be shared between network users and the TSO. The FGs advocate that the most efficient outcome will be achieved, where the primary responsibility for balancing is with the Network Users and where the TSO is responsible for any residual balancing. Jointly, their actions will keep the transmission system within an acceptable operational envelope. The assumption is that where there is a sufficiently well-functioning wholesale market an efficient outcome, leaving only a small residual role for the TSO, can be achieved to the benefit of consumers. This will be the case if the balancing regime succeeds in incentivising network users to have entry and exit flows that will keep the system within an acceptable operational envelope and of the TSO playing

Where there are multiple network users inputting and off-taking gas from the Transmission System at different entry and exit points, balancing becomes very complex. The balancing regimes in the different systems have been developed to keep their system within its acceptable physical operational parameters and accommodate the needs of its network users. These needs can vary depending on specific circumstances, for example the needs of an interconnector network user will differ from a network user on other systems who have directly connected customers.

Most of the roles and responsibilities for Network Users and TSOs are contained in the chapters of the Draft Code which follow. As such, Chapter II refers to the principle that the primary responsibility of balancing lies with Network Users.

ENTSOG does not pose any consultation questions on this topic, deferring to the substantive topic chapters which follow.

2. Balancing zone and entry/exit system

A Balancing Zone is defined in the FGs as an entry/exit (e/e) system. An e/e system can be considered as (based on the Regulation) a Transmission System in which transmission capacity is market-based on an e/e model. This is a commercial model in which there is no link between entry and exit when booking and no link between entry and exit when using the capacity. Offering transmission capacity as e/e capacity is a significant step in enabling network users to trade gas efficiently.

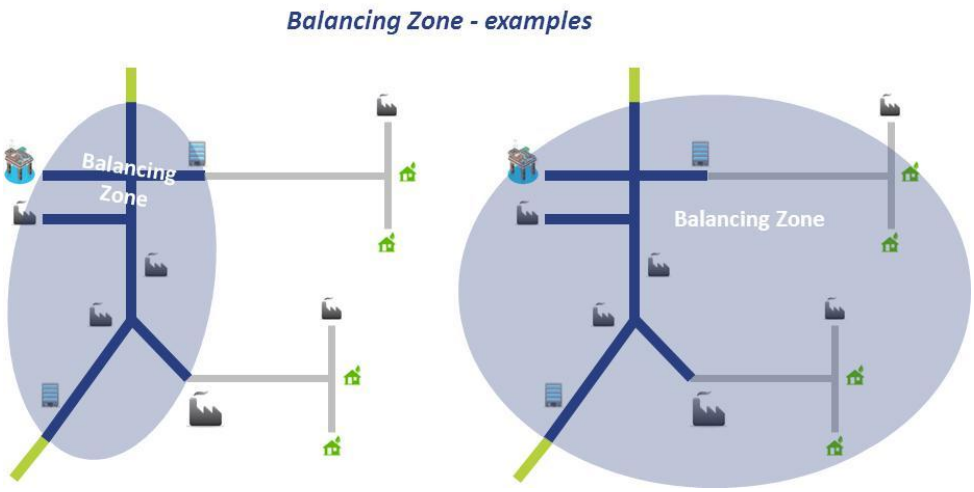
The initial identification of entry and exitexit and entry points points, at which transmission capacity is sold and used, is straight forward: all points at which gas can enter or leave the transmission system will be an entry and/or exit point. This would make entry and exist points of interconnection points with adjacent TSOs and of points connecting the transmission system with storage facilities; entry points from interconnections with off-shore systems, production sites and LNG facilities; exit points from connection of large industrial end-consumers and power generators directly connected to the transmission system and the interconnections from the Transmission to the Distribution Systems.

In more recent years, in some systems the boundaries of the e/e systems have been expanded:

- Networks of more than one TSO have been integrated into a single e/e system, hiding the interconnection between transmission systems;
- The exit points from transmission to distribution network have moved further downstream effectively moving the exit point to the end-consumers in the distribution system.

Some graphical representations of the different possibilities for the boundaries of a Balancing Zone are given in the figure below.

Figure 1



The introduction of e/e systems removed the (sometimes very strong) link between Inputs and Off takes within a Network User's Portfolio. However, to keep the Transmission System within an acceptable operational envelope some limitations has to be in place, at least between the total amount of gas coming onto the system and the amount taken off the system. These limitations are the scope of the balancing regime and the aim is for network users to have the primary responsibility to manage their flows onto and off the system in such a way that the system stays within the accepted operational envelope, leaving only a residual role for the TSO. To put such a responsibility on the network users it is necessary to allocate the physical flows that come onto the system and all the physical flows leaving the system to individual network users. This Allocation shall be done based on agreed allocation rules that can be executed several times within a Gas Day.

For some exit and entry points the TSO has all the information needed to allocate the physical flow to the network users that are active on these points. For example on Interconnection Points with adjacent transmission systems the TSO has the measured quantity and knows which shippers have title to the gas. With this information the TSO can execute the allocation algorithm and inform network users of their share of the gas that has flown over the e/e point.

For other points, the TSO needs information from third parties to do the Allocation, or even require a third party to do the Allocation. An example is the gas taken by end-consumers in the Distribution Systems. Here the support of the DSOs is crucial in allocating exit flows. This is a point recognised by the FGs for which ENTSOG and DSOs have worked together closely in the formulation of Chapter IX of the Draft Code.

3. Proposed establishment of Trade Notification and Allocation rules

As mentioned in the opening of Chapter 4, ENTSOG seeks to submit a Balancing Network Code which is sufficiently specific for immediate application upon its entry into force. In this context, during the development of the Draft Code, it became apparent that the code's implementation would not be possible without establishing a virtual trading point within an e/e system at which any two network users, including the TSO, can exchange gas between their portfolios and without some basic rules for allocations. The Draft Code establishes this virtual trading point through the Trade Notification. The purpose of Trade Notifications is to provide a common basis to enable Network Users to trade gas efficiently and to enable a market-based procurement mechanism for flexible gas.

Article 8 proposes EU-level rule to harmonise the information to be part of a Trade Notification. The Draft Code also proposes to harmonise relationship between notification quantities and exit and entry allocation which is to be respected within a balancing system.

The Trade Notification and Allocation rules outlined in Chapter II are made functional in Chapter IV – Operational Balancing, which is treated in section 5.4 to follow.

Question 1 – *Do you concur that the inclusion of the Trade Notification and Allocation rules in the Balancing Network Code will contribute to the delivery of a properly functioning market? If not, please propose an alternative and provide justification.*

Question 2 – *In the context of the proposed Trade Notification and Allocation rules, does the Draft Code provide sufficient harmonisation within? If not, what would be the preferred basis for any additional harmonisation?*

5.3. CROSS-BORDER COOPERATION

A. Corresponding extracts from FGs

For the purposes of the developing Chapter III – Cross-border Cooperation in the Draft Code, the key sections of the FGs are the following:

7. Cross-border cooperation

The network code on gas balancing shall require relevant TSOs to cooperate in order to integrate European gas markets by merging entry and exit zones or create cross-border balancing zones wherever this is technically feasible and economically reasonable or through other means such as market coupling.

The relevant TSOs shall consult stakeholders on proposals to integrate European gas markets, including an impact assessment of the expected costs and benefits and on the timeline for completion. ENTSOG shall share the results of the stakeholder consultations with the relevant NRAs and ACER. The final proposal shall be submitted for approval to the relevant NRAs and for information to ACER. The involved NRAs shall coordinate to reach the best outcome possible when providing a decision on this proposal. NRAs may seek an opinion or a recommendation from ACER, based on the provisions of the Agency Regulation.

The network code on gas balancing shall require ENTSOG to regularly review the progress of harmonisation of rules in adjacent balancing zones in order to identify opportunities for the creation of cross-border balancing zones and market coupling. The review will also consider whether there are additional measures needed to harmonise rules, which may facilitate the achievement of cross-border balancing zones.

The network code on gas balancing shall include proposals for TSOs to implement cross-border balancing projects in the European gas regions. In developing these proposals, TSOs will consult on options for cross-border balancing, including but not restricted to arrangements for:

- 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;
- cross-border TSO balancing, which would allow TSOs to act as intermediaries to facilitate access to flexible gas in neighbouring markets (for example by allowing their neighbouring TSOs to accept bids and offers for balancing services in their balancing zone); and
- a joint balancing platform for TSOs in neighbouring balancing zones to buy and sell balancing gas, where sufficient interconnection exists.

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. On the contrary, regional initiatives could serve as platform to bring forward cross-border balancing cooperation.

B. Background to Draft Code formulation and consultation questions

The FGs on this topic outlines processes for cross-border cooperation by delivering proposals for merging e/e zones, creating cross-border balancing zones or market coupling wherever this is technically feasible and economically reasonable. The objective is to conduct reliable processes that could lead to the identification of robust projects that could enhance the cooperation between TSOs across borders.

1. Establishing processes to identify new cross-border projects

The FGs include examples of cross border mechanisms which could be used to implement specific cross-border balancing projects in Europe, such as shipper-led cross-border portfolio balancing, cross-border TSO-balancing and a joint balancing platform. The SJWS3 on 9 February 2012 recognised that it was inappropriate for a network code, as EU legislation, to include detailed project proposals. Further, the technical and economic feasibility of any project proposal included in the Draft Code likely would change significantly within the time period of finalising the network code and its eventual adoption. The Draft Code therefore focusses on establishing processes with stakeholder involvement where necessary that can lead to identify new cross-border projects.

Stakeholders' expressed the view that the first priority is to increase the level of harmonisation, with further integration being the result of this increased harmonisation.

The EC (Directorate-General for Energy) representatives present at SJWS3 advocated a "pragmatic approach," agreeing that the Draft Code need not include proposals for specific cross-border balancing projects. It is therefore assumed that the omission of such proposals in the Draft Code will not be considered a deviation from the FGs by ACER or the EC.

2. Consultation process

The FGs outline a consultation process on project proposals to further integrate European gas markets. This would be a TSO-led process given that TSOs would be the best-placed to identify and consult stakeholders in relevant balancing zones on the need and scope for such projects.

The process shall include an impact assessment phase, where the economic and technical effect of the proposal in question will be assessed. ENTSOG will be implicated in the final stages of the consultation process where it will offer assistance to make the proposal as robust as possible. The final proposal will be delivered to the national regulatory authorities (NRAs) by the relevant TSOs.

Figure 2

3. Review process

The FGs state, *"The network code on gas balancing shall require ENTSOG to regularly review the progress of harmonisation of rules in adjacent balancing zones in order to identify opportunities for the creation of cross-border balancing zones and market coupling,"* which implies that ENTSOG reviews the progress of the harmonisation of the balancing rules in adjacent balancing zones on a regular basis in line with the Regulation and involves stakeholders to the extent necessary. ENTSOG then is to publish regularly a report that highlights the results and provides views and recommendations on the necessity of additional measures to harmonise balancing rules. The review report could be used as a valuable input for TSOs to identify opportunities for the creation of cross-border balancing zones or identification of market coupling mechanisms.

Question 3 – *Do you agree that ENTSOG should issue the review on the harmonisation of balancing rules at the latest two year after the implementation of the network code and then biannually thereafter? If not, please propose an alternative and provide justification.*

Overview of the review process

The Draft Code proposes the process demonstrated in the figure below.

Figure3

The FGs ensure that TSOs can cooperate independently outside the ENTSOG structure in order to bring forward cross-border balancing projects.

Question 4 – *Do you agree with the proposed review process (including the issuing of a report (in the public domain) proposed by ENTSOG? If not, please propose an alternative and provide justification.*

5.4. OPERATIONAL BALANCING

A. Corresponding extracts from FGs

For the purposes of the developing Chapter IV – Operational Balancing in the Draft Code, the key sections of the FGs are the following:

> **3. Buying and selling of flexible gas and balancing services by TSOs**
>
> 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.
>
> The network code on gas balancing 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). […] although NRAs may incentivise TSOs to procure efficiently by allowing them to receive a payment if balancing costs are minimised to a certain level, or require them to make a payment if these are above a certain amount.
>
> The network code on gas balancing shall require TSOs' procurement and sale of flexible gas and balancing services to be market-based. As such, TSOs should use the wholesale gas market to procure gas in a transparent and non-discriminatory manner, as far as possible on an equal footing with network users and by maximising the amount of their balancing needs to be fulfilled through the buying and selling of within-day products.
>
> **3.1. Balancing services and flexible gas products**
>
> The network code on gas balancing shall define standardised products and related balancing services that TSOs may buy or sell. These standardised products shall include short-term products, which are traded during the gas day either on a physical basis or through title transfer. They may also include long-term products of up to one year. The long-term products may be either for a particular volume of flexible gas or an option to inject or withdraw a particular volume of flexible gas.
>
> The network code on gas balancing shall require 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 (or, where the interim step applies, on the balancing platform). NRAs may design incentive mechanisms to encourage TSOs' compliance with this requirement.
>
> The network code on gas balancing shall require TSOs, when defining the products to be bought or sold, to coordinate the product range with neighbouring markets (or balancing platforms, where the interim step applies).
>
> In order to allow TSOs to meet the specific balancing needs of their transmission systems, the network code on gas balancing shall permit TSOs to buy or sell non standardised products such as temporal products and / or locational products.

B. Background to Draft Code formulation and consultation questions

The FGs place heavy emphasis to the TSO using the short term market to gain access to flexible gas.

The FGs imply that the key problem to be addressed is the widespread use of long-term options for flexible gas. The FGs aim to reduce the use of long term options to flexible gas for taking balancing actions. Balancing actions are taken to change gas flows onto the system and/or gas flows off the system to maintain the system within acceptable operational limits. A FGs policy objective is to favour the short term market over long term contracts to gain access to flexible gas.

Balancing Actions

- the TSO is responsible for a safe and secure operation of the network, keeping the system within operation limits at all time, including during the day. Primarily the TSO will manage the flows and the distribution of gas throughout the network, as part of its transmission task. However, there may be situations in which this is not sufficient and the TSO may want to change gas flows onto and off the system, changes relative to the flows provided to and taken from the system by its customers, during the day. The FGs aim to get these changes of gas flows through market based mechanisms.
- In a daily balancing regime, where the imbalances of individual network users at the end of the day are financially settled, the TSO will have to actively manage the end-of-day position of its network. The reason for this is that through this settlement the TSO will either buy or sell an amount of gas from its network users. The TSO should only buy or sell gas if it has a need to do so and only to an extent necessary for that need (e.g. when it thinks it wants to start the next gas day with a linepack level different from the starting position of the previous day). The way for the TSO to manage the amount of gas it has to buys or sells at the end of the day is by influencing the end of day position of the network users as a whole and the TSO can influence this position through the settlement prices. The TSO can only influence this settlement price by trading Title Market Products. In this way a daily balancing regimes fosters the development of a short term wholesale market.

The TSO also should foster liquidity of the short-term wholesale market by taking balancing actions as much as possible through trading flexible gas in the wholesale market. The reasons for this are threefold:

1. The TSO will be another party in the wholesale market -- and one that could potentially offer larger amounts of flexible gas
2. By trading in the wholesale market, the TSO should be able to minimise the options to flexible gas held in long term contracts, making this flexibility available to the market
3. If the TSO is restricted to the wholesale market, its cost of procuring gas will be more reflective of prices in that market, resulting in balancing charges on network users which are more reflective of wholesale prices, which then will allow Network User to avoid better such balancing charges by themselves trading in the wholesale market.

Another aspect in the problem identified is that TSOs do most of the balancing of the network. This is reflected in the FGs' statement, "*The principle is to provide, as much as possible, for network users to balance their individual portfolios which is likely to minimise the need for TSOs' balancing actions*."

The view is that the wholesale market should provide a tool to network users in balancing their portfolio.

The responsibility, shared between network users and TSO to balance the system, also requires a high level of transparency; Network User need to know 'where the system is' and what its own position is in order to be able to take appropriate portfolio balancing actions. This transparency is covered in Chapter IX – Information Provision Obligations of the Draft Code. The current chapter covers the transparency on the evolution of the Marginal Buy Price, the Marginal Sell Price and the Weighted Average Price. This price evolution needs to be available to all network users and updated during the day.

These principles from the FGs have been implemented in the Draft Code through the six topics which follow:

i. TSO balancing actions;

ii. Definition of short-term standardised products (STSP);

iii. Buying/selling on trading platforms;

iv. Use of merit order;

v. Balancing services: criteria to consider in procurement;

vi. Option to use incentives.

i. TSO balancing actions

The Draft Code identifies two objectives that may trigger the TSO to take balancing actions:

- maintain the Transmission System within its operational limits;
- achieve an end-of-day linepack position in the Transmission System different from the one anticipated on the basis of expected Inputs and Off-takes for that Gas Day, consistent with the objectives of the daily balancing regime.

The balancing actions then aim at changing the physical flows onto and off the Transmission System. Here the FGs offer two options to the TSO for buying/selling flexible gas: on the wholesale market; or through the use of balancing services.

The definition of balancing actions is limited to those actions by which the TSO aims to change inputs to and off takes from the system. The FGs clearly acknowledge that the TSO may need to take such actions and states as a principle that such action should be taken by trading flexible gas in the wholesale market. As inputs and off takes are determined by network users, the TSO in general cannot change these for operational purposes. As a result, the TSO has to incentivise network users to change their flows at the entry and exit points of the system, either by trading flexible gas or through the use of services bought by the TSO that provides it with the option to request flow changes from a network user. For this, the Draft Code defines a number of tools and guidance on the situations in which to consider the use of these tools. Here the Draft Code focuses on tools that can be traded in the wholesale market.

The physical effect of title trades by the TSO

An objective of the network code, following the framework guidelines, is to maximise the amount of TSO's balancing needs to be fulfilled through trading the Title Product. Even though there is no requirement for a network user trading a Title Product to change its flows onto and/or off the system, nevertheless this product will help the TSO in managing the end-of-day position of its network. The mechanism behind this is based on the use of Marginal Buy and Sell prices. A trade by the TSO will change the settlement price.

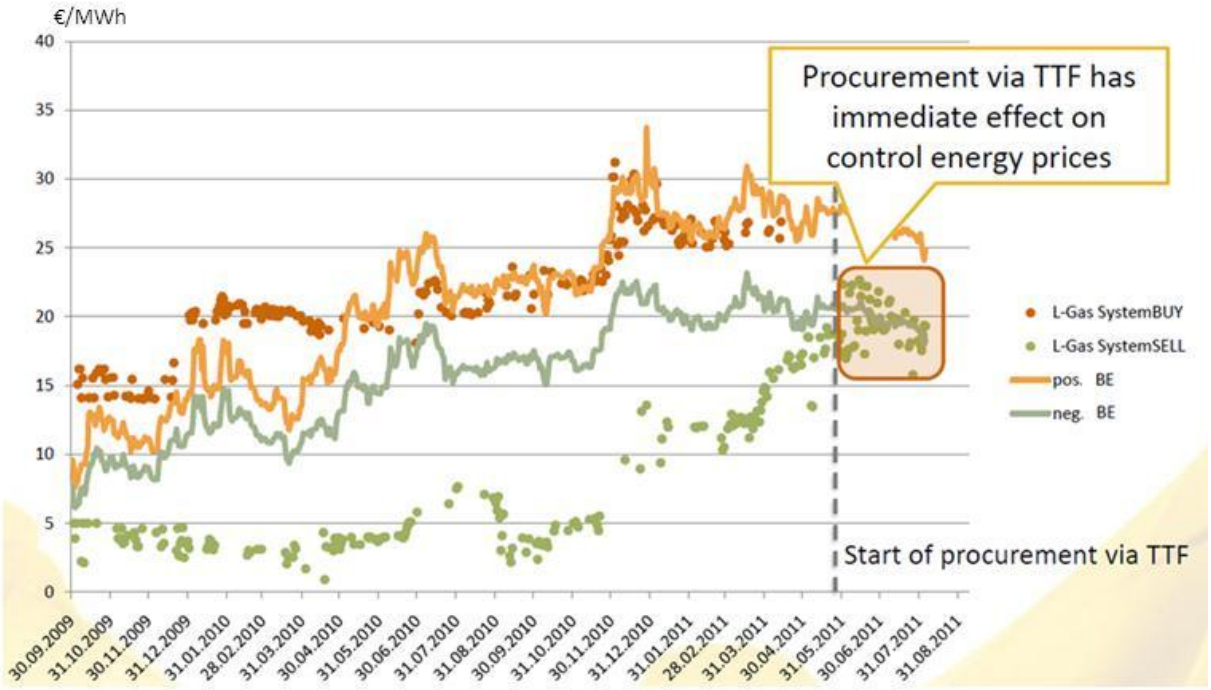
TSOs will primarily trade in their own markets. Another way for the TSO to change entry or exit flows is, if it trades flexible gas in an adjacent wholesale market for balancing purposes. This will require the TSO to acts as a network user and book transmission capacity at the relevant e/e point(s) at both sides of the interconnection point. The TSO should only under specific circumstances trade in adjacent markets and book this cross-border capacity; moving gas between adjacent markets is in principle a task for network user and if the TSO need gas from an adjacent balancing zone it should try to use trading mechanisms to get this gas. However, there might be situations in which the trading mechanisms are not economic and efficient and in these cases the TSO should consider and be allowed to trade in adjacent markets, avoiding situations in which network users cannot use the cross-border capacity as a result of this cross-border trade by the TSO.

TSO trading in adjacent market – example

On 1 June 2011, NetConnect Germany (NCG) launched the procurement of balancing gas on the Dutch Title Transfer Facility (TTF), in order to get access to a liquid wholesale market for low caloric gas (L-Gas) for balancing actions. The trade of gas quantities is taking place at the European Energy Exchange (EEX), which set up the TTF as delivery point within their gas spot market. The procurement on an adjacent hub came along with the booking of transport-capacities at interconnection points to the Netherlands and the operation of a shipper-portfolio at GTS. In this respect, NCG is acting as a normal Shipper in the GTS-system (nominations etc.)

Along with the strengthening of market place EEX/TTF, NCG was able to realize considerably more cost-efficient prices for low calorific balancing gas and to use a wholesale market for the procurement of balancing gas more frequently (meanwhile about 80% of the total low caloric balancing gas is being procured on EEX/TTF).

Figure 4



Source: NetConnect Germany

This model for cross border balancing as a best practice example for the cooperation between neighbouring Network Operators in order to ensure system integrity and foster market liquidity. The fact that the need for procuring flexible gas in an adjacent market is only occurring when there is unused capacity ensures that system operator is not withholding capacities from regular network users.

As the procurement of local and quality-specific balancing gas can be easily constituted by the use of specific interconnection points, NCG is evaluating to further expand this model at the TTF and other neighbouring title trading points.

To date it does not appear that ACER has ruled out the option for TSOs to trade in an adjacent market. During the SJWS process, ACER indicated that care should be taken that capacity is not withheld from network users, but are clearly open to this type of cooperation/procurement.

Question 5 – *Do you agree that TSOs should, under specific circumstances, be allowed to trade in adjacent markets? If so, please explain under what circumstances.*

The Draft Code specifies that the TSO should aim at 'economic and efficient' balancing actions when balancing actions are necessary. In this context, the expression 'economic and efficient' is used to capture the aim that the operation should not only take account of the lowest price available for the TSO, but also consider aims such as:

- securing competition between relevant shippers and/or suppliers;
- provision of reasonable incentives for relevant suppliers as to the availability of gas to their domestic customers;
- compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or ACER (i.e. using market-based balancing and facilitating the development of a liquid wholesale market);
- The coordinated operation of combined pipe-line system and the pipeline system of one or more other relevant gas transporters (i.e. care needs to be applied so that TSO's do not lower the cost for themselves if it means increasing the costs in a dis-proportionate way for other operators).

Question 6 – *Do you agree that the use of the expression 'economic and efficient' is a suitable criterion assessing TSO Balancing Actions? If not, please provide an alternative and an associated rationale.*

ii. Definition of Short Term Standardised Products

Pursuant to the FGs, the Balancing Network Code is to define standardised products.

When a TSO needs to procure flexible gas, standardised products are limited to the short term. A smaller number of standardised products would also be better for liquidity.

The TSO has specific needs which might not be addressed by the network users given the rules to which they are subject. The TSO shall meet this through trading in the wholesale market to the extent reasonable. The TSO should use products that can support it in keeping the system within an acceptable operational envelope. The Draft Code has identified four types of Short Term Standardised Products (STSPs) that, assuming that it is straight forward to find a trading partner on the Trading Platform for any given order, should provide sufficient tools for the TSO to balance the system.

These types are:

Title Market Product

The choice for the Title Market Product is straight forward. It will allow network users to balance their portfolio through trading in the whole sale market. It also allows the TSO to influence the end-of-day position of the individual network user counterparty and of the network by affecting the price at which end-of-day positions of network users are settled. It is a product without a direct link to physical flows. This product is expected to be the most liquid flexible gas product in any market.

For hourly nominated systems, the assumption is that the gas is transferred between the two portfolios in a flat profile, the same amount of gas for each hour.

Locational Market Product

The Locational Market Product is primarily aimed for use by the TSO, but any two network users could trade this product. This product can be used by the TSO in situations in which there is either too much gas or too little gas at specific parts of the network and the TSO cannot redistribute this gas in the network quickly enough to keep that part of the system within operational limits. The TSO itself cannot make changes in flow rates at entry and/or exit points and therefor needs a mechanism to trigger network users to make flow changes. The choice to link such flow changes to a trading transaction is to make it easier to trade, to price and to compare with other products.

The definition of the locational market product specifies a start time at which the physical change should take effect. Here the assumption is that a TSO will only use a locational product if it needs a change in flow rates at specific points in the system and this flow change needs to take effect within a specific period.

The product assumes that the re-nomination will be a step-change, or the change to the previous nomination is the same for all remaining hours of the day; for hourly nominated systems this makes that both the exchange of gas between participants and the physical flow change have the same flat profile.

One of the trading participants has to make nominations (respectively re-nominations) at the specified exit and entry points. There are different ways in which this can be determined. The choice in the network code is that the originating party, the one that puts the bid/offer on the trading platform, will make the re-nominations. This, however, prevent the TSO from being the originating party, the TSO, in general, cannot make re-nominations at e/e points. An alternative way is to make an explicit choice in which trading participant will take the obligation to make the flow changes; the trading system will have to support this dialog between Originating and Accepting Participants. An intermediate form is where the Originating Participant has the obligation to make the flow changes, unless it is the TSO that originated the transaction, in which case the Accepting Participant will also accept the requirement to make the required flow changes.

Temporal Title Market Products

These products only have a use in system with WDOs which have significance for network user's within-day positions. In that case the product can be used by network users to manage their within-day position and by the TSO to manage within-day positions of the network.

The effect of a Temporal Title Market Product can be constructed by using two title products. The Draft Code has recognised this by only allowing the use of a temporal title product if the use of this combination of buying and selling title products is less economic. This assessment can only be made if both title market transactions can be done simultaneously.

Temporal Locational Market Products

The last product that has been identified is the Temporal Locational Market Product. This product give the TSO flow changes at a specific (group of) exit and entry points for a specified period of time within the gas day. This product is a combination of Locational Product and Temporal Product; all considerations given in the description of these two products do apply to this product as well.

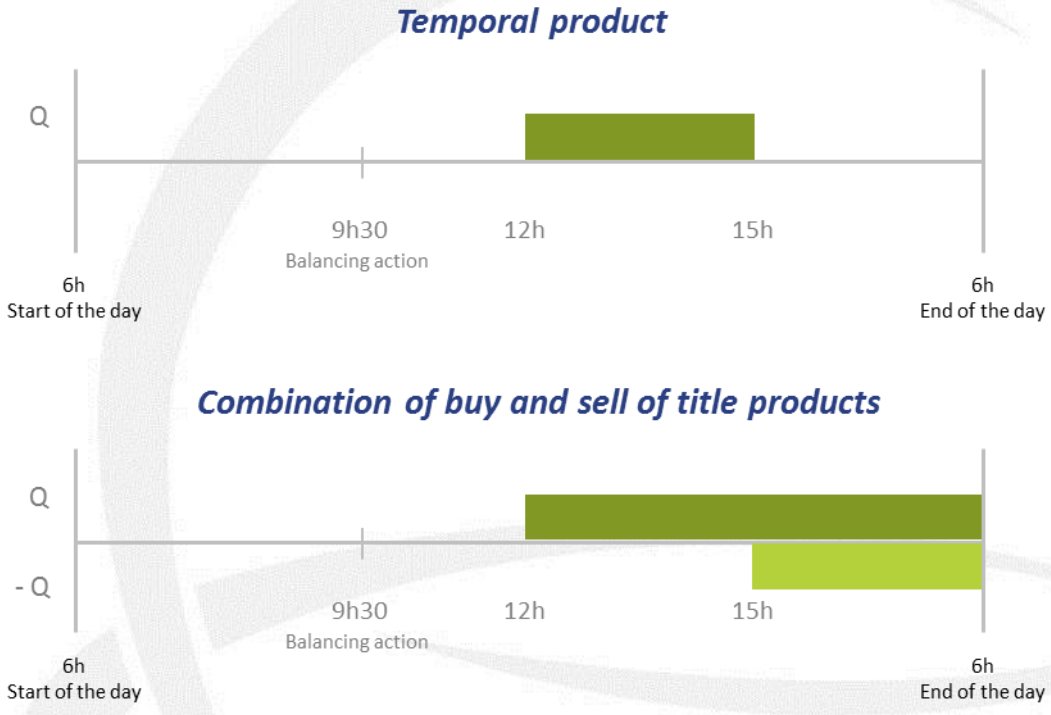
To summarise:

- the Title Market Product will enable network user to trade gas efficiently, providing it a tool to balance the end-of-day position of its portfolio balance and at the same time offers the TSO a market based tool to influence the end-of-day position of the network;
- the Locational Market Product will primarily be a tool for the TSO when it needs a physical response either within the gas day or at a specific location; the use of such a product will differ from one system to the other, but most TSO will need the option to trade such a product;
- the Temporal Market Product is aimed at balancing regimes that have WDOs which create significance for network user's within-day position; it enables network users to trade within-day positions and offers the TSO a tool to influence within-day positions of the network; the parameters of this product have to be set carefully to allow it to develop some liquidity and market depth;
- any Temporal Locational Product is at the bottom of the list of STSPs, as the most specific and probably the one with least liquidity, very low number and volume in bids/offers, on a trading platform;
- Not all TSOs and not all markets will need all four products at all points in time, the TSO should ensure that the products it feels are relevant for managing its system will be offered on a trading platform.

Stakeholder feedback: Use of temporal products

Stakeholders have suggested not including the Temporal Product. The Temporal Product will develop less liquidity and market depth than the Title Product and the effect of any temporal transaction could be constructed from two title transactions. The graph below shows an example how this effect of a trading a Temporal Product can be constructed by buying and selling two Title Products.

Figure 5



Where the TSO takes balancing actions to manage within-day positions of the network, the FG aim to target the cost of such balancing actions to those network users that triggered this balancing action. This means that the within-day charge based on the use of a combination of two Title Products must be similar to that of a Temporal Product. For example, if the TSO needs to buy a Temporal Product, then the price of this Temporal Product must be compared with the price of buying a Title Product minus the price the TSO gets for selling the associated Title Product. This will require that the TSO to trade both Title Products at the same time. Trading both Title Products at the same time also avoids a delay in informing relevant network users in the within-day charge they have incurred as a result of the balancing action.

Stakeholders agreed to keep the Temporal Product as one of the STSP. If the assessment that the title market will be more economic to trade in than the temporal market is right, then TSO will have an interest in trading Title Products. For managing within-day positions of the network the Temporal Product could be a useful option if the liquidity of the title market is not (yet) sufficiently high that the TSO will always be possible to get a pair of Title Products it is looking for.

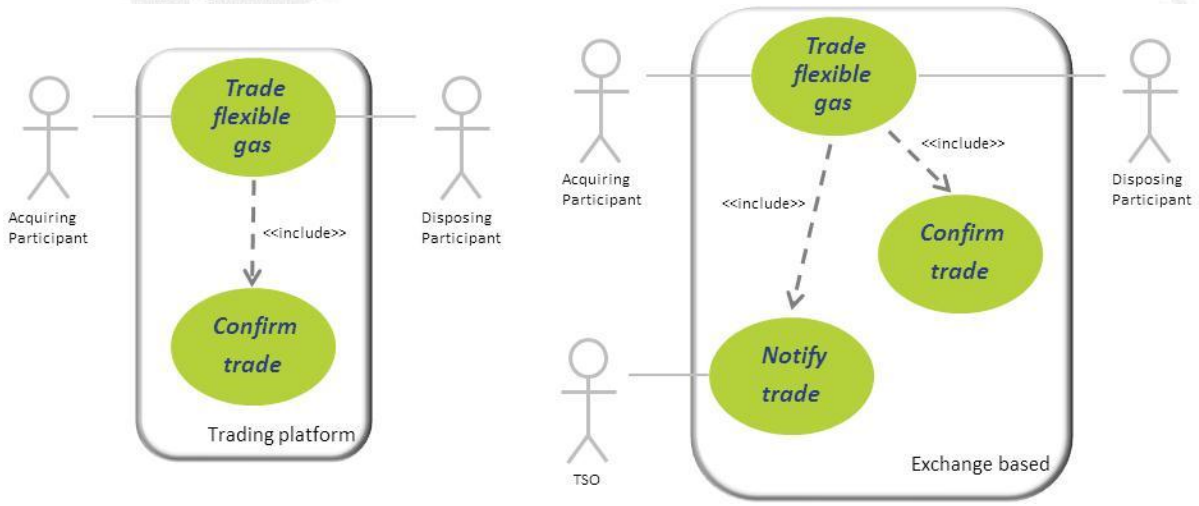
Question 7 – *Do you agree with the choices in the Draft Code: (1) to limit standardised products for trading flexible gas to short-term products; and (2) to have only a small number of short-term standardised products? If not, please explain why.*

iii. Buying and selling on Trading Platforms

Balancing is an operational activity, need for flex gas manifests itself within the day, at best day-ahead. This leaves TSO little time search for gas to be procured. A trading platform to which the TSO can turn to when needing flex gas is then almost a necessity. Such a trading platform will help to ensure transparent and non-discriminatory trading by standardising the process and contracts to facilitate on-line trading.

The Draft Code only describes a limited role of for the Trading Platform Operator (TPO). The TPO can provide more support to TSO and network users in relation to trades done on its platform. One addition would be to extend the trading platform to an exchange, with cleared services. There is merit for the TSO and the market as a whole in using exchange based trading for the purpose of balancing action. The difference between the Draft Code and an exchange that provides additional roles is represented in the figure below. The left-hand side represents the proposal in the Draft Code in which the trading participant, after they have concluded the trade, have to submit the corresponding trade notifications to the TSO themselves. The right-hand side represents a situation in which the TPO submits the trade notifications to the TSO. In addition, the exchange operator could offer a service, in cooperation with the TSO, of also submitting nominations (respectively re-nominations) in case locational product was traded.

Figure 6



Exchange-based trading, clearing services

Exchanged-based trading could offer some benefits when a TSO is trading flexible gas. Because of the use of standard contracts and clearing services, it is possible to trade anonymously. With the clearing house as the central counter party to all trades, participants of the exchange need only to have trading arrangements in place with this central counter party and do not have to look into the risk of counterparty default. This allows a participant of the exchange to trade with any other participant. This improves access to flexible gas and ensures a high reliability of the trades. All these advantages are relevant for the TSO. The benefits of exchange-based trading come at a cost which comprises potentially a subscription fee, a transaction fee and the costs for providing the required sureties to the clearing house.

Stakeholder feedback - Exchange based trading

Stakeholders recognised the advantages of exchange based trading, but also pointed to the additional costs involved. Especially for less liquid markets this might hinder development of liquidity. A choice for exchange based trading in short term standardised products could be made at a national level, not having this type of market would be unlikely to impose undue barriers to cross-border trading or to new entry into the market.

In particular, where the TSO will operate a balancing platform, stakeholders did not see an added value to offer cleared service, such a service would go beyond the scope of TSO's responsibilities.

The Draft Code is not explicit on whether or not TSO should trade on exchanges. Differences between exchange based trading and OTC trading on a platform are not expected to pose undue barriers to cross-border trade or entry into the market; the choice is left as a matter to be determined by local markets.

***Question 8** – Do you agree that the Balancing Network Code should not prescribe exchange-based trading for the TSO and to leave this to the discretion of the TSO and the TPO? Should the network code provide criteria and factors to consider for the TSO to use an exchange based trading?*

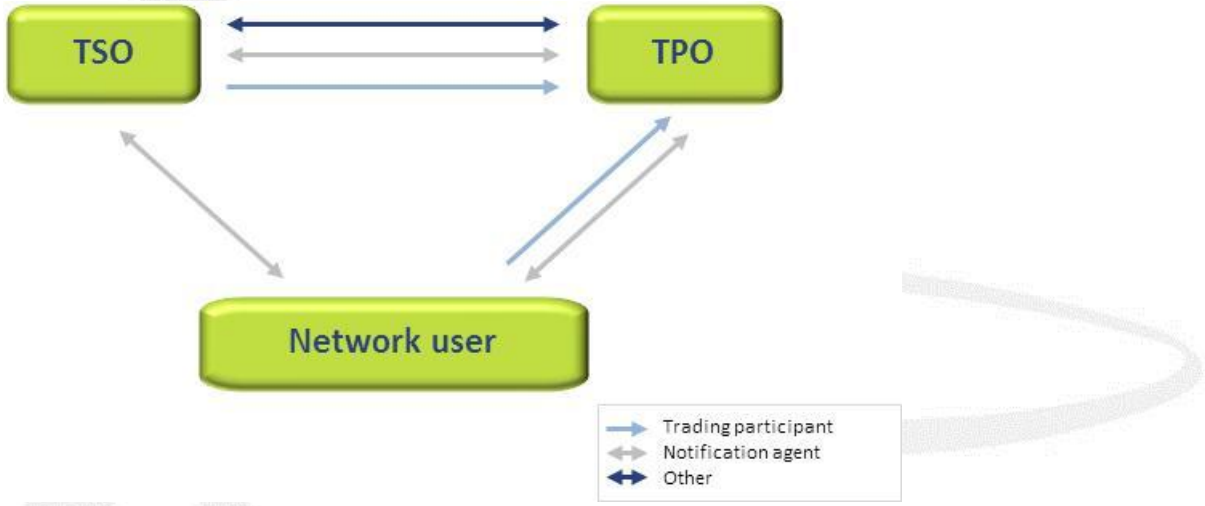
A trading platform (TP) could offer more support to the market than specified in the Draft Code without directly moving towards an exchange. The implementation of such additional support depends on local circumstances. A higher level of support will benefit the functioning of the market, but different levels of support are not seen to impose undue barriers to cross-border trade. Accordingly, the Draft Code specifies a low level of harmonisation on this point and leaves decisions on additional services to the national level.

Depending on the services the TP offers, an agreement between the TPO and the TSO has to be reached on how these services are provided for. In addition this will also require changes in the contractual arrangements between TSO and network users and between TPO and trading participants. In response to feedback in the SJWS process, the Draft Code does not specify what these contractual arrangements should cover and how they are to be reached (e.g. the STSPs make no reference to a block size so is it acceptable that this will be agreed on a local basis).

Question 9 – *Do you agree with the current level of services to be provided by a Trading Platform specified in the Draft Code? For example, the STSPs make no reference to a block size, meaning that this will be agreed on a local basis. If not, please explain where and why additional specification is needed.*

To trade on a trading platform, the TSO needs to register as a trading participant on the platform, entering into a contract similar to that of other platform participants. In addition, the TSO and platform operator have to agree on aspects specific to the role of TSO. This includes the products that the platform will support and the exchange and publication of price evolution during the day. If the platform will also submit notifications and/or nominations (respectively re-nominations), then this role needs to be captured in an agreement across the involved parties as well. The figure below provides a high level graphical representation of such contractual relations.

Figure 7



A TPO, in some cases the clearing house, may want to make special arrangements with the TSO that will also impact on the relation between TSO and network user. An example is the use of, what in some systems is called, single sided notifications, in which the clearing house want to be sure that its notifications are not rejected because of a mismatch. The TSO could agree to such a mechanism, but this would have to be agreed with the network users as well. This level of detail is left out of the Draft Code.

In addition, submitting trade notifications on behalf of trading participant, the platform may be able to submit the nominations (respectively re-nominations) for the originating participant in case of locational trades. For the platform to act as an agent for these nominations (respectively re-nominations), it has to be informed about the counter-party for this nominations (respectively re-nominations). The nominations (respectively re-nominations) rules will determine whether the platform can act as an agent for submitting nominations (respectively re-nominations) – with the result of the TSO receiving nominations (respectively re-nominations) for a network user from two different parties. They will also determine whether and to what extent this adds complexity to TSO

and/or network users. . There are regimes in which a re-nomination is added to the cumulative amount nominated; in this case, it is easier for an agent to submit re-nominations. In other regimes, a re-nomination revokes all previous nominations (respectively re-nominations); in this case, additional complexity needs to be added to manage these different channels through which nominations are received.

If the platform offers cleared services, then trades will be fully anonymous and the risk of counter-party default, either seller defaulting on delivery or buyer on payment, is mitigated. It also enables easier access to the platform, as the new entrant will only need a trading contract with the clearer. The downside to all this is that there is an additional cost for trading cleared products. The party that does the clearing will in general be a central counterparty to all trades. This means that the clearer will have balancing risks if the Trade Notifications are registered incorrectly. This risk can be mitigated through some additional arrangements between clearer and TSO, which will also have an impact on the relation between TSO and trading participants and the one between platform operator/clearer and the participants.

Another aspect that the TSO and TPO have to agree is the publication of the price evolution of the Marginal Buy Price, Marginal Sell Price and Weighted Average Price. This price evolution gives Network Users at each moment in the Gas Day what the price would be if the Gas Day were to finish then. Access to this price evolution is an essential part of the balancing regime and this information needs to be available to all network users, whether they are registered to the trading platform or not. If the Price is based on transaction on only one platform the platform operator is best placed to publish this evolution; if trade from two or more platforms feed into the calculation of the Price, then possibly the TSO could play a role in the publication. The Draft Code enables price publication in both options.

Question 10 – *Do you agree with the current level specified in the Draft Code on contractual structure and arrangements between the different parties? What changes (if any) would you advocate?*

Additional roles of Trading Platform

In the Draft Code, the Trading Platform only performs the most basic support, limited to bringing together supply and demand. The Trading Platform should allow for anonymous trading at least until the trade is concluded. The role of the Trading Platform could be increased and, for example, include functions like

- act as an agent for the trading participants, submitting
  - trade notifications for trades concluded on the platform
  - nominations for the locational products
- offering clearing service

For a trade concluded at the Trading Platform to take effect, it is necessary that both Trading Participants make the associated trade notifications. It is Trading Participants' obligation to make such trade notifications and this should be covered in the Network User/Platform operator contract. In addition, submitting trade notifications on behalf of Trading Participant, the platform may be able to submit the nominations (respectively, re-nominations for the originating participant in case of locational trades.

***Question 11** – Do you agree with the choices in the Draft Code to put the obligation to (re)nominate on the originating party? If not, what would your preferred alternative be and what benefits would this alternative have over the mechanism proposed in the Draft Code?*

Locational products can only be traded for exit and entry points at which network users have to nominate their flows. Without a requirement to submit nominations (respectively re-nominations), it is difficult for the TSO to know what it's buying and to check whether the product has been delivered. If, for example, end consumers (industrial, power generators), want to be able to offer flexibility to the TSO through locational products, then they will have to agree with the TSO that they will submit nominations (respectively re-nominations) for their exit points.

iv. Application of a merit order

The Draft Code recognises this requirement by introducing a merit order, stating "*The network code on gas balancing shall require 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*."

In an e/e system with a daily balancing regime the Title Market Product will be a useful tool for network users to manage end-of-day positions. This product will likely be used in all balancing zones and be the most liquid one and whenever the TSO needs to take a balancing action it should consider whether this product will contribute to keeping the system within its operational limits.

If the TSO expects that the trading Title Market Product is not likely to trigger the required flow changes at the entry and/or exit points it shall consider the use of Locational Market Products. With this product, the TSO has more control over the desired flow changes; it can specify the point(s) at

which it is looking for flow changes and can also indicate a time by which the flow change has to take effect. Although this product will be less liquid, it can be an effective market based tool for the TSO.

In some systems the Temporal Title Market Product can be a useful tool for the TSO, especially to manage within-day positions of the network. The reason this product is lower in the merit order is because it is a more complex product, that not only requires an effective time, but also duration or an end time. In addition it could be considered to be more difficult to trade cross-border; it is difficult for a network user to provide a temporal product from an adjacent market that does not offer (the same) temporal products.

The last STSP identified in the Draft Code, the Locational Temporal Product, is a tool for the TSO to manage within-day positions at specific (groups) of entry and/or exit points. This is the most specific tool and likely to have lowest liquidity and market depth.

If the TSO would use a balancing service while trading STSP is likely to keep the system within accepted operational envelope, then this balancing action, using the balancing service, can be considered as being non-market based. It keeps flexible gas away from the market, reducing liquidity of that market. In general the use of balancing services should only be considered in situations where trade in STSP cannot or is expected not to trigger flow changes needed to keep the system within the accepted operational envelope.

The use of balancing service that have a significant fixed cost should also be limited as far as possible: the fixed cost is difficult to target to those network users that trigger the balancing action and this cost is not directly linked to the price of flexible gas in the wholesale market.

***Question 12** – Do you concur with the sequence of the tools in the merit order and the level of guidance it gives the TSO in choosing the most appropriate tool? If not, which changes, if any, would you advocate and why?*

v. Balancing services: criteria to consider in procurement

In addition to buying and selling of short term flexible gas through Standardised Short Term Products, the TSO may purchase Balancing Services to manage those situations in which the buying/selling of Standardised Short Term Products is not sufficient for the TSO to keep the system within acceptable operational limits. In this context balancing services are options held by the TSO to request network user to change its flows at entry and/or exit points.

Criteria for using Balancing Services instead of Standardised Short Term Products might include:

- *lack of liquidity of the market* **-** when the TSO cannot find a counter party in the market to trade with it should have an alternative for the balancing action it wants to take. Especially if the gas is required at a specific location or during a specific time window during the day, it is the locational market that needs to be sufficiently liquid.
- *frequency of balancing actions* - in case the system requires balancing actions on a frequent basis (e.g. inject gas every day in the morning and withdrawal gas every day in the evening), the cost of repeated buy/sell actions may make it more economic and efficient to turn towards Balancing Services instead of trading flexible gas through Standardised Short Term Products.
- *response time needed* **-** if the TSO faces some issues which require a quicker response than could be provided by STSP within an adequate timescale, then Balancing Services shall be used instead of Standardised Short Term Products
- *location at which the gas is needed* **-** for some location a reasonably liquid market could develop, giving the TSO sufficient confidence to find a party to trade with whenever necessary; if the TSO is not confident that this will be the case for all relevant points or sub-systems then it should considerer the use of balancing service to keep the sub-system within accepted operation limits;
- *gas quality issues* - for commercial balancing arrangements, gas quantities are expressed in units of energy (kWh). Most TSO have specific requirements, either technical or contractual, on the quality of the gas at entry and/or exit points. To manage these quality constraints, the TSO might not always be able to rely on the STSP and more specific agreements with network users might be needed as a back-up;
- *cost of balancing the Transmission System* - where liquidity is very low, trading small quantities of gas will result in significant price movements. Consequently, the cost of balancing using STSPs could become considerably higher than through the use of Balancing Services. To mitigate this risk of significantly higher cost for Network Users, the use of Balancing Services could be considered.

The use of Balancing Services to manage within-day positions of the network should be weighed against the possibilities and benefit of the options of the use of STSP and/or imposing WDOs on network users.

The FGs explicitly keep the possibility open for TSO to procure a storage contract with a storage operator. In this case the TSO will have its own flow onto and off the system. As is the case with a TSO trading in an adjacent market, here too due consideration should be given to the fact that the TSO will need to have to book entry and exit capacity to and from the storage facility. In addition, the storage capacity contracted by the TSO will not be available to network users.

The Balancing Network Code should aim to reduce amount of option for flexible gas held by the TSO through long-term balancing services For this purpose the Balancing Actions taken by the TSO, including the use of the balancing services, should be evaluated. The result of the evaluation will then be the basis for deciding on the procurement of balancing services for a next period. In this context, publication on balancing actions taken, for example day after the day for which the action has been taken, could be considered.

***Question 13** – What is your view on: (1) the criteria to be considered by the TSO when procuring Balancing Services; and (2) the gradual reduction of the use of Balancing Services as the liquidity of the wholesale market increases? Please provide a reasoned response.*

vi. Option to implement incentives (to underpin merit order and reduce the amount of options for flexible gas held by the TSO in long term contracts)

The FGs refers to an option for the NRAs to incentivise TSOs to procure efficiently. In this context, the Draft Code includes the option for the TSO, to design and propose incentive mechanisms to maximise the use of the STSPs subject to economic and efficient operation of the network taking account of the aim to foster market liquidity. The incentives are subject to NRA approval.

The Draft Code indicates mechanisms that may incentivise TSOs to:

- foster market liquidity;
- promote the TSO's efficient undertaking of the Balancing Actions;
- maximise the undertaking of Balancing Actions through the trade of Short Term Standardised Products;
- take Balancing Actions at prices close to the wholesale market price.

The Draft Code does not explicitly make reference to minimise the cost of balancing the system. It is not clear to which costs this might refer and so the reference to TSO's efficient taking of the Balancing Actions is considered to appropriately capture the interactions inherent within the balancing regime and settlement processes.

An incentive on TSO that supports the aim of maximising the amount of their gas needs to be fulfilled through buying and selling of STSP on the wholesale market should support the TSO in trading close to the market. When gas is expensive and the TSO has to buy, then there is a high cost; the TSO should not be penalised for this high cost.

***Question 14** – Do you agree with the mechanism that the TSO shall be enabled to submit an incentive mechanism to the NRA for approval? If not, please explain why.*

5.5. NOMINATIONS

A. Corresponding extracts from FGs

For the purposes of the developing Chapter V – Nominations in the Draft Code, the key sections of the FGs are the following:

> **4.3. Nomination procedure**
>
> If not covered by other legal obligations, the network code on gas balancing shall set out criteria for nomination and re-nomination procedures to be harmonised at both sides of the border at interconnection points and consistently across Europe. Re-nominations are needed to enable network users to adjust their own positions and buy or sell flexible gas for balancing purposes.
>
> These criteria shall minimise response times by allowing network users to adjust their balance position during the gas day up to a specified time in accordance with other legal obligations. The network code on gas balancing shall prevent TSOs from requiring that network users nominate input volumes which match their output volumes or vice versa.

B. Background to Draft Code formulation and consultation questions

1. Background

As explained in section 4.1, in the development of the Draft Code, ENTSOG and stakeholders noted that the implementation of the network code would not be possible without a basic nominations (respectively re-nominations) rules being adopted and implemented concurrently. The EU-rules for nominations (respectively re-nominations) were foreseen by the EC to be a part of the planned network code on interoperability for which ACER's formulation of the FGs is still in progress. In this context, ENTSOG made an inquiry to ACER, requesting that some elements of the foreseen EU-defined nominations (respectively re-nominations) rules be included in balancing network code.

In a written exchange with ENTSOG and ACER on 2 February 2012, ACER stated:

"Given its significance, stakeholder feedback and that the harmonisation of nomination regimes has not been covered in other legal obligations, we invite ENTSOG to include nomination rules in the Balancing NC [Network Code]. "This should take into account stakeholder input, analysis of what the issues are (particularly in relation to the Balancing FG objectives and cross-border trade) and any other relevant interactions, including with capacity auctions (CAM), as well as the requirements of the balancing regime (including network users' requirements). We would expect this to result in a proposal for harmonised renomination and nomination rules and lead times."

In light of this revised mandate from ACER, ENTSOG increased the scope of the Draft Code to include nominations (respectively re-nominations) rules. ENTSOG assumes that doing so will not be considered as a deviation from the FGs by ACER or the EC but a necessary complement.

The nominations (respectively re-nominations) section of the planned network code on interoperability will complement the Draft Code by addressing the operational processes and data exchange needed to underpin the nominations (respectively re-nominations) rules to be included in the eventual draft network code on interoperability.

2. Policy approach

The FGs refer to criteria for harmonisation of nomination and re-nomination procedures at IP Points. ENTSOG presented some initial thoughts on such criteria at SJWS 1, where stakeholder feedback was strongly of the view that additional criteria were required in the Gas Balancing Network Code. In light of this ACER reconsidered its expectation on the code and reverted to ENTSOG on the 2 February 2012 seeking 'harmonised re-nomination and nomination rules and lead times'.

ENTSOG therefore have prepared rules rather than criteria for the balancing network code. These rules were presented at SJWS5 for stakeholder feedback. In 'fast tracking" the nominations (respectively re-nominations), some specific issues have arisen which are given further attention in this document.

Articles 1-8 of Chapter VII set out the criteria for nomination and re-nomination procedures. These have been designed in order to harmonise nomination rules at all Interconnection Points.

Question 15 – *Do you consider that the procedures set out in the Draft Code (excluding timing, which is covered below) for the submission of nominations and re-nominations, and the criteria for their rejection, are reasonable? If no, please present and justify your preferred alternative.*

i. (Re-)nomination schedule

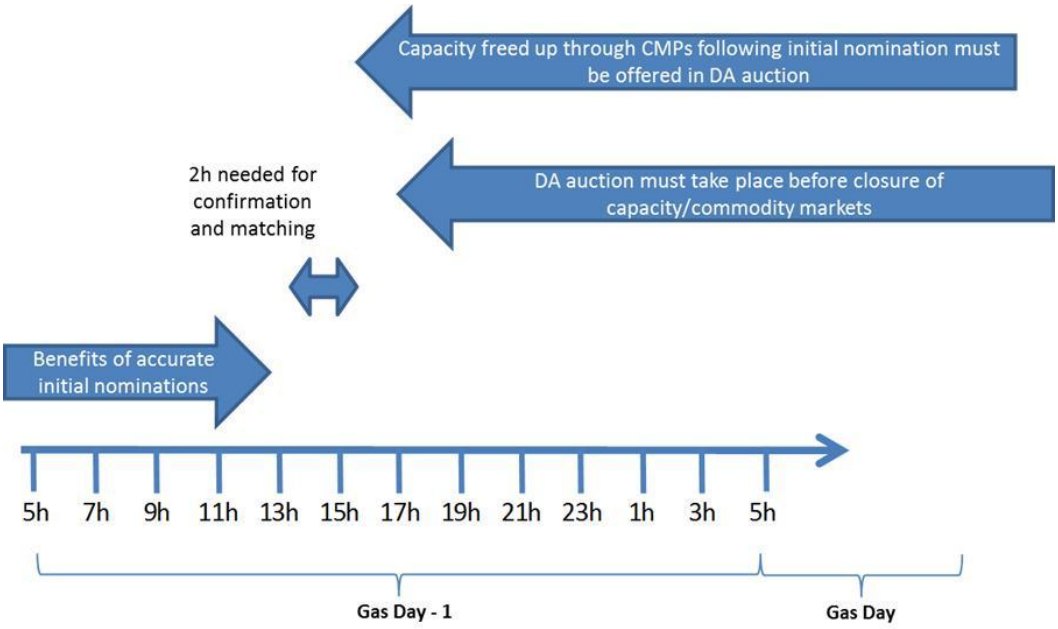
Given the close relationship between the timing of nominations (respectively re-nominations) and the activities covered under the balancing network code stakeholders supported the need to include this topic in the Draft Code. Due to the revised timetable to nominations development, it was not possible to develop the draft code content to the same extent in the SJWS process as was the case for other topics. ENTSOG would therefore particularly welcome views from respondents to this consultation on whether the analysis in this section takes all relevant factors into account and whether the code provides appropriate rules.

Initial nominations and re-nominations are considered separately, due to the different factors affecting both.

a. Initial nominations

The timing for initial day-ahead nominations is subject to a number of interactions which limit the possible timescales, as shown in the figure below.

Figure 8

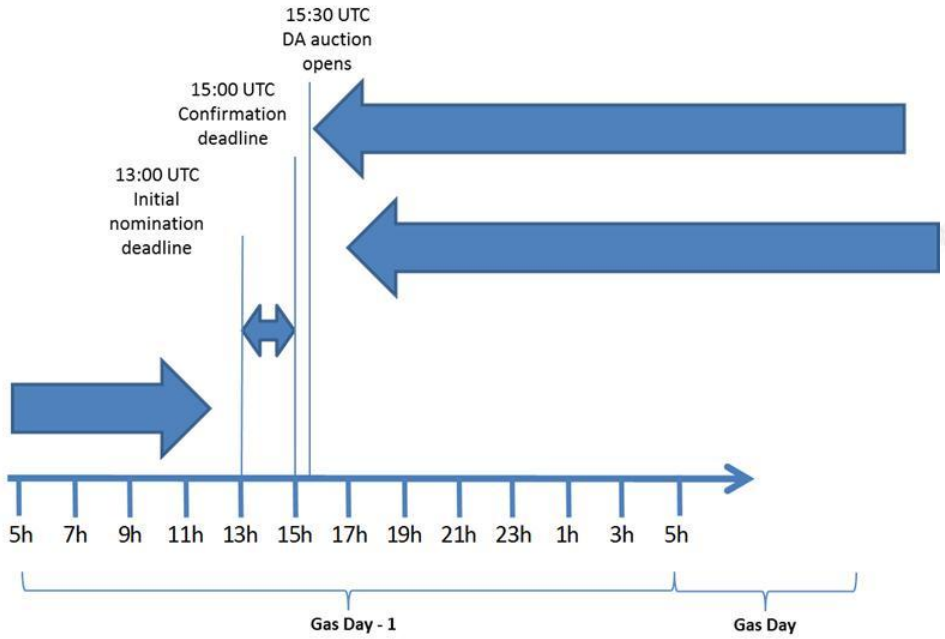


The initial nomination schedule is intended to take each of these factors into account as fully as possible:

- the CAM Network Code specifies that the day ahead (DA) auction will open at 15:30 UTC, allowing the auction to close and capacity to be allocated while gas commodity markets are still open;
- a minimum of 30 minutes is needed for TSOs to calculate the capacity available in the DA auction, including any that is freed up through the restriction of re-nomination rights congestion management procedure (CMP). Therefore, the confirmation and matching process can finish at 15:00 UTC;
- up to two hours is needed for the confirmation and matching process. Therefore the initial nomination deadline cannot be later than 13:00 UTC;
- the advantages of accurate initial nominations point to a deadline for initial nominations that is as late as feasible while complying with other factors. For example a greater amount of time supports a more accurate NDM Derived Forecast to be prepared.

Taking all factors into account, the initial nomination schedule is as follows:

Figure 9



***Question 16** – Do you agree with the schedule for initial day-ahead nominations set out in the Draft Code? If not, please give a reasoned alternative schedule.*

b. Re-nominations

Currently, a standard two hour lead time for re-nominations is often applied (latest re-nomination two hours before gas flow).

The CAM Network Code specifies that within-day firm capacity auctions will close two hours before gas flow. After the closure of the auction, capacity must be allocated, nominations against the recently purchased capacity may be made, and the consequential nomination and matching process must be carried out. This implies that within day capacity purchases might not be fully useable because there is not enough time for the re-nomination process after the within-day auctions.

This unintended consequence has become apparent during the development of the Draft Balancing Network Code and indicates the internal challenges associated with the suggested deliver of separate codes which have interactions. ENTSOG continues to work internally, across its working areas/groups, to find solutions for them.

The Draft Code specifies that:

"TSOs shall send the Confirmation Notice regarding the rescheduled gas quantities for the Gas Day D to the respective Network Users within 2 hours from the start of each re-nomination cycle and before any gas flow change comes into effect."

This interaction is to be considered and at the time of writing it is not yet clear how this inconsistency can be addressed.

Question 17 – *Do you agree with the schedule for re-nominations set out in the Draft Code? If not, please give a reasoned alternative schedule.*

Specific features of harmonised rules

Nominations Transitional Measure

During the developments of nominations (respectively re-nominations) rules, some of ENTSOG's members highlighted the difficulties of implementing the new harmonised rules after adoption of the network code, for several reasons such as:

- adaptation of regulatory and market arrangements;
- amending Interconnection Agreements;
- establishing the associated systems and other infrastructure to support such arrangements.

Due to the 'fast tracking' of the treatment of nominations (respectively re-nominations) in the network code planning, this policy debate did not take place at the FGs development stage. In order to allow TSOs to transition to the proposed harmonised rules, a "transitional" measure may be appropriate.

Protecting System Integrity

The FGs also prohibit TSOs from requiring that network users nominate input volumes which match their output volumes or vice versa. This is of particular concern to those systems, which have large volumes of transit gas.

ENTSOG has therefore not introduced such a rule and instead proposed in the draft network code a "fail safe" which allows the TSO to intervene and change nominations (respectively re-nominations) where system integrity is at risk. It is in both Network Users and TSOs interest that this precaution is here to prevent the system entering emergency status.

Daily Hourly Regimes

Some Balancing Zones that border each other have nominations (respectively re-nominations) rules that are hourly on one side and daily on the other. In some cases there may be issues that arise in terms of attributing costs of the flexibility across borders to those that caused the need.

In response to this concern an 'enabler clause' which allows these parties to carry out a public consultation to examine if harmonised nominations (respectively re-nominations rules are required at both sides of the border. This consultation will consider:

- Financial impact
- Impact on cross border flows;
- That any changes do not undermine the daily balancing regime.

Question 18 – *What are your views on these specific features on nominations (respectively re-nominations) for transition, system integrity and daily-hourly regimes of the network code? Please provide a reasoned response.*

5.6. DAILY IMBALANCE CHARGE

A. Corresponding extracts from FGs

For the purposes of the developing Chapter VI – Daily Imbalance Charge in the Draft Code, the key sections of the FGs are the following:

1.3. Objective

…

Therefore, the balancing regime defined by the network code on gas balancing shall include cost-reflective imbalance charges to the extent possible, set on the basis of the marginal price, to incentivise network users to balance their portfolio efficiently…

The network code on gas balancing shall also define a harmonised balancing period of 24 hours with financial settlement at the end of the gas day…

4.1. Balancing period

The network code on gas balancing shall provide that the balancing period for a balancing zone is 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 into and off-takes from the balancing zone. In the network code this standardisation shall be set out from 5:00 to 5:00 UTC/GMT or any other time period harmonized across the EU as decided for daily capacity products in the network code on Capacity Allocation Mechanisms.

At the end of the balancing period, network users shall be financially settled based on their individual position. Being financially settled after this interval does not preclude network users from engaging in portfolio balancing activities within this interval. Once they have been financially settled, each network user's portfolio position will be reset to zero….

5. Imbalance Charges

5.1. General provisions

The network code on gas balancing shall require TSOs to publish transparent methodologies for the calculation of imbalance charges. It shall establish harmonised principles for these methodologies in accordance with the rules set out below. TSOs shall provide network users with regular and detailed information on how any imbalance charges they incurred were calculated.

The network code on gas balancing shall require TSOs to charge imbalance charges separately 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 were out of balance at the end of the balancing period…Imbalance charges shall be targeted on the network users contributing to the imbalance and therefore shall not include other charges.

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

The network code on gas balancing shall require TSOs to have in place imbalance charges that are consistent with the requirements set out in this Section and which have been approved by the NRA pursuant to Article 41(6)(b) of the Gas Directive.

The network code on gas balancing shall set out that, where TSOs use either the wholesale market or a balancing platform, including a joint balancing platform, to buy or sell balancing gas, the imbalance charges shall be based on the marginal sell price or the marginal buy price. The marginal buy price and the marginal sell price also apply when the TSO has taken no action. The imbalance charge may include a small adjustment to incentivise network users to balance their portfolios. This adjustment shall be designed and applied in a non-discriminatory manner, so that it does not deter market entry or impede the development of competitive markets.

B. Background to Draft Code formulation and consultation questions

1. Interpretation of FGs

The approach to deriving Network Users imbalances is a fundamental element of the Balancing Network Code. It defines the primary incentive on Network Users within the balancing regime. Accordingly, it should be constructed with a view to maximising the extent to which Network Users balance their actual Inputs and Offtakes on a daily basis consistent with the objective of minimising the balancing role of the TSO. The FGs thus provide for a Daily Imbalance Charge mechanism that incentives Network Users to balance their Inputs and Offtakes over a Gas Day. The assumption is that generally the Network User would be better off trading to achieve as close to a balanced position as possible rather than to face the Daily Imbalance Charge exposure.

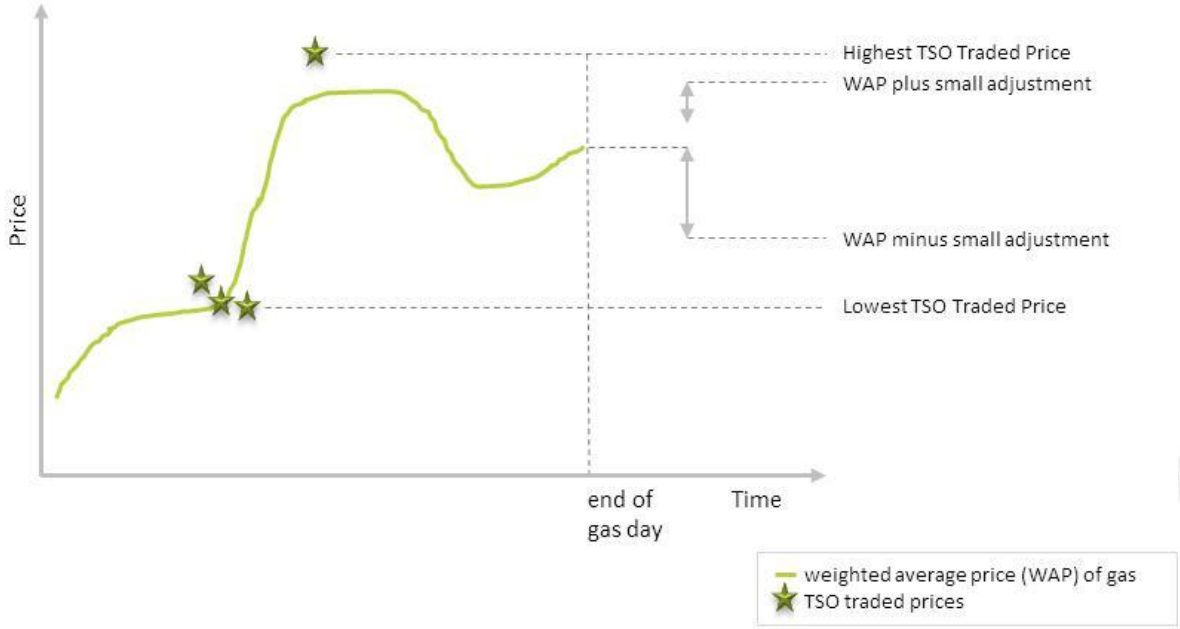
Where a Network User's Offtakes exceeds their Inputs for a Gas Day (i.e., they were short gas), they purchase gas from the TSO at a price which is at least slightly above the Weighted Average Price of gas on the Gas Day (Marginal Buy Price.) Conversely, if their Inputs exceeded their Offtakes (i.e., they were long gas) then they sell this gas to the TSO at a price at least slightly below the Weighted Average Price of gas on the Gas Day (Marginal Sell Price), again this naturally provides an incentive to balance.

Furthermore, the Marginal Buy Price and Marginal Sell Price formulation have a direct link to the costs of Balancing Actions of the TSO – this is intended to target the costs of all TSOs Balancing Actions to those Network Users who cause such Balancing Actions.

The specification in the FGs outline much, but not all, of the specification necessary to derive The Marginal Buy Price and Marginal Sell Price. This consultation document sets out the full range of parameters that would be necessary to completely define the Marginal Buy Price and Marginal Sell Price derivation and seeks stakeholder views as to whether the balancing network code should be prescriptive or to leave some of the parameters to local discretion.

The factors that input the derivation of the Marginal Buy Price and Marginal Sell Price are shown in the graphic below. In this example, the TSOs trades outside the Weighted Average Price with the positive and negative Small Adjustment, meaning these TSO trades set the Marginal Buy Price and Marginal Sell Price for this Gas Day.

Figure 10



The FGs also provide for the methodology to be published by the TSO and provide supporting information to Network Users.

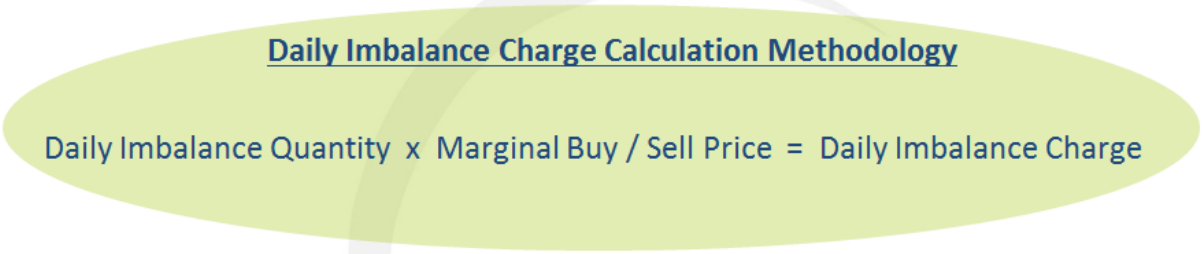
Several stakeholders raised the possibility within the SJWS of a 'helper concept', where a Network User who is on the opposite side to the overall system imbalance should not face exposure to a marginal price (and could in fact be rewarded). The FGs' approach is based on the concept that individual Network Users shall be incentivised to achieve a daily balance. Consistent with this concept, the FGs are explicit that a two price cash-out regime (with network users facing different prices for "long" and "short" exposures on their daily balancing accounts), and ENTSOG has not sought to challenge this approach.

During the stakeholder sessions ENTSOG were called upon to consider many subjects, including different views on how to organise day ahead trading and the form and level of Small Adjustments. These different opinions are considered under each subject.

2. Policy approach

The determination of the Daily imbalance Charges involves two critical elements; the calculation of a Daily Imbalance Quantities and the derivation of the Marginal Buy Price and Marginal Sell Price[12], as shown in the figure below.

Figure 11



i. Daily Imbalance Quantity calculation

The FGs define that Network Users should have their Daily Imbalance Quantities calculated based upon their Inputs and Offtakes. This is consistent with the underlying objective of encouraging Network Users to balance their own contents so as to minimise the residual role of the TSO. The Draft Code provides for systems where TSOs allow Network Users to hold more than one portfolio for balancing purposes.

However, the FGs also provide in the information section an alternative approach, whereby Network Users are able to fulfil their balancing obligations with information provided day-ahead for NDM Offtakes (for example, where their imbalance is determined using the day-ahead NDM Derived Forecast as the Offtake).

Many stakeholders argued that the option to balance against day-ahead NDM Derived Forecasts is counter to the general intent of the FGs -- and in particular, is contrary to the policy objective of minimising the role of the TSO in residual balancing. There was also clear feedback from ACER during the SJWS process that the FGs provide for this approach. Thus this policy option is included in the Draft Code.

Several stakeholders also indicated a preference for the Daily Imbalance Quantity determination to be based upon a within-day forecast (perhaps the last one consistent with allowing a Network User's response to achieve a balance). Stakeholders have also suggested that any difference between the NDM Derived Forecasts and actual NDM Offtakes (for the purposes of calculating Daily Imbalance Charges) should be settled at a Weighted Average Price rather than at a Marginal Buy Price or Marginal Sell Price. This would effectively split a portfolio into NDM Offtakes and other loads and may contribute to an unwarranted cross-subsidisation. Additionally, such a treatment of NDM Offtakes may reduce market liquidity since Network Users would have a reduced incentive to seek to secure gas after the final NDM Derived Forecast is made even where they have better information about anticipated Offtakes. If a Network User can predict its NDM Offtakes better than its competitors, it should gain an inherent advantage where consistent with the objectives of the FGs.

[12] a two price cash-out mechanism is chosen in the FGs

Thus while the approach could eliminate, or at least reduce, imbalance exposures for Network Users this would socialise other costs that might arise. Many stakeholders have argued that the intent of the FGs is that Network Users will be balanced against the best available Input and Offtake information available shortly after the Gas Day unless such information is already available within day.

The intent of the FGs is to leave a modest Daily Imbalance Quantity exposure (particularly where the portfolio involves NDM Offtakes) with Network Users but, which in conjunction with a market-based Marginal Buy Price and Marginal Sell Price determination (which sets fair and not unduly penal exposures), will generate a fair allocation of risk within the balancing regime.

However, stakeholders have expressed concern throughout the SJWS process that the intended approach can only be applied when there is an appropriate maturity in the regime and therefore once a liquid Short Term Wholesale Gas Market has been established and Network Users have appropriate levels of information to manage their risks and opportunities. Therefore elsewhere in this document some measures to promote accuracy of these forecasts (where necessary) are introduced:

- a specific Tolerance Level for the difference in the final NDM Derived Forecast and NDM Offtake Allocation;
- a provision to allow an incentive to encourage the forecasting accuracy of the NDM Derived Forecast;
- transparency on the accuracy of the NDM Derived Forecast;
- provision that the NDM Derived Forecast must be based on Load Profiles.

Question 19 – *Do you support the Daily Imbalance Quantity determination proposed in the Draft Code? If not, please indicate your preferred approach and supply further rationale and evidence of the benefits of Daily Imbalance Quantities being derived on information based during the Gas Day?*

ii. Daily Imbalance Charge

The FGs provide some detail about the basis of the Daily Imbalance Price determination but the rules are not exhaustive and therefore some gaps need to be filled. This section identifies these gaps and seeks views on the gaps and whether these should be addressed in the Balancing Network Code or in the relevant Daily Imbalance Charge Calculation Methodology.

a. The trades that are included in the Daily Imbalance Charge

The table below sets outs the trades that feed into the Daily Imbalance Charge Calculation Methodology:

Table 2

Pricing Contributes to:	Product	Day D (short term)	Day D
Marginal component (TSO trades only)	Title Market products	√	√
	Locational Market Product	*Prohibited by Framework Guidelines*	
	Temporal Market Product		
	Temporal Location Market Product		
Weighted Average Price (Market trades)	Title Market products	√	√
	Locational Market Product	*X*	*X*
	Temporal Market Product	*X*	*X*
	Temporal Locational Market Product	*X*	*X*

Locational and temporal transactions

The FGs prescribe that locational and temporal transactions should be excluded from the marginal price setting process.

Question 20 – *Do you have alternative views as to whether Locational and/or Temporal Market Products should feed into the derivation of the Weighted Average Price? If so what is your rationale for a different approach and what do you see as the benefits?*

Network user imbalances

An individual Network Users exposure is determined by three components:

- Volume exposure
  The extent to which Network Users are able to manage the differences between its Inputs ("credits") and Offtakes ("debits") from its daily balancing account. Particularly with regard to end NDM Offtakes Network Users may have some uncertainty about their Offtakes in their daily balancing accounts.
- Price exposure
  The extent to which Network Users face uncertainty with regard to cash-out prices will vary. Where liquid Short Term Wholesale Gas Markets exist then Network Users should be able to trade to avoid imbalances. The Marginal Buy Prices and Marginal Sell Prices need to be set to provide adequate, but not excessive, encouragement for the Network Users to achieve a balance.
- Neutrality exposures
  This comprises a range of residual charges/redistributions that the Network User faces in the context of the balancing regime functioning. This exposure is related to the inherent incentives elsewhere in the regime most noticeably the direct incentives to Network Users (from the Daily Imbalance Price exposures) and the incentives on TSOs in its residual balancing role.

The incentives implied by the Daily Imbalance Charge regime are fundamental and will define:

- The strength of the individual Network Users incentive to balance
- The effectiveness of the timely delivery and quantities of physical flexibility when TSO is taking residual Balancing Actions

Inclusion of day-ahead trades

The FGs are silent on this matter.

This may be a matter for determination in the context of regime operation. Using day-ahead transactions may lead to greater stability in the evolution of anticipated Marginal Buy Prices and Marginal Sell prices during the relevant Gas Day. However, too much stability in the evolution of these prices may make it very difficult to achieve flow rate changes late in the day. Therefore the consideration may depend upon local assessment of the balancing regime – ENTSOG has currently used the terminology "in respect of the Gas Day, which does not limit the calculation to trades made within the Gas Day.

***Question 21** – Do you agree that day-ahead trades should feed into the determination of the Weighted Average Price, Marginal Buy Price and Marginal Sell Price? If so then under what circumstances should they be used? Is there merit in allowing local discretion as to whether day-ahead trades influence the setting of the prices?*

Sources of Trades

As implied above, it is best to exclude from the price determination any trades for the Gas Day that were made any earlier than day ahead (weekends excepted). This issue is closely related to which trades should be used in price determination.

SJWS discussions indicated that prices should not be based on bi-lateral OTC trades even where indices and trade details are published by price reporters. Participants indicated that only trades on wholesale platforms (e.g. exchanges, Trading Platforms and Balancing Platforms) should be used.

It may be that this is again a matter of local determination via the Daily Imbalance Charge Calculation Methodology.

Question 22 – *Do you agree that the source of trades should be left to local discretion? What criteria should apply? Should there be an aspiration that the source of trades should be a single platform and if so why and how should the platform be determined? Please provide a rationale for your preference(s).*

The derivation of the Small Adjustment

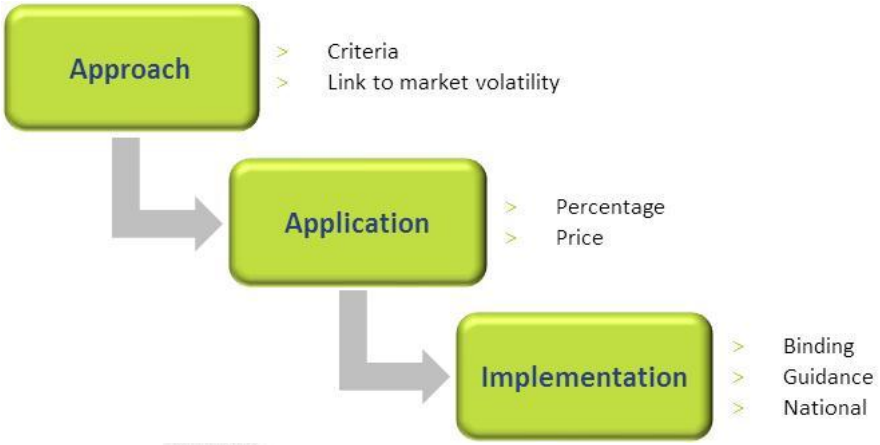
The Small Adjustment is designed to deliver an incentive to encourage Network Users to balance (particularly where the TSO has not traded and has therefore not assured a differential between the Marginal Buy and Sell Prices).

A critical design factor is to understand what the differential is designed to do. For example, it could be designed to be a modest but sufficient incentive to encourage trading. Or it could mean to be a larger differential designed to represent a value for physical gas flexibility.

The FGs sets a process for derivation of the Small Adjustment, by the TSO seeking NRA approval subject to certain criteria being satisfied. ENTSOG and stakeholder examined these criteria at the SJWS and there was widespread support for the addition of a new criteria; “its impact on cross border trade”.

However, several stakeholders also indicated a desire for a further level of harmonisation on the Small Adjustment and these options were explored with Stakeholders in SJWS3. The figure below seeks to demonstrate some of the elements needed to construct such a Small Adjustment.

Figure 11



It should be noted, however, that any changes to the approach outlined in the framework guidelines may not be "in-line" with the framework guidelines and ENTSOG will need to consider this carefully.

Draft Code includes only criteria for the derivation of the Small Adjustment.

Question 22 – *What should the effect of the small adjustment be: to encourage trading or to be sufficiently large to reflect a value for physical flexibility?*

Question 23 – *Do you agree with the addition of cross border trade as a criterion to the derivation of the Small Adjustment? Are the criteria sufficient? If not, what else should be added? Please justify any proposals.*

5.7. WITHIN-DAY OBLIGATIONS

A. Corresponding extracts from FGs

For the purposes of the developing Chapter VII – Within-Day Obligations in the Draft Code, the key sections of the FGs are the following:

> **2. Principles for network users and TSO roles and responsibilities**
>
> **2.1. General provisions**
>
> … The network code on gas balancing shall set out that network users, through their portfolio
>
> balancing activities, shall take primary responsibility for matching their inputs against their
>
> customers' off-takes from the balancing zone during the relevant balancing period. The principle
>
> is to provide, as much as possible, for network users to balance their individual portfolios which
>
> is likely to minimise the need for TSOs' balancing actions…
>
> **4.2. Within-day obligations**
>
> Where the TSO needs to take balancing actions regarding the system's position during the day, the network code on gas balancing shall provide for the TSO to impose specific obligations relating to network users' inputs and off-takes during the gas day ("within-day obligations"). This shall only occur where, in order to ensure system integrity and to minimise the need for the TSO to take balancing actions, it is necessary to incentivise network users to take appropriate balancing actions during the day.
>
> The network code on gas balancing shall require that balancing services required for within-day balancing are procured in a market-based manner, pursuant to Section 3 of these Framework Guidelines.
>
> The network code on gas balancing shall require that any within-day obligations shall not act as an undue barrier to cross-border trade or to new network users entering the market and shall only be adopted once network users are provided with sufficient information to enable them to comply with the obligations. Any within-day obligation shall not undermine the principle of a daily balancing regime, i.e. the main costs to be incurred by network users in relation to their balancing obligations shall relate to their position at the end of the day in accordance with Section 5 of these Framework Guidelines (and charges relating to within-day obligations shall only be a small proportion of any imbalance charges). Where such within-day obligations apply, the TSO

may impose on network users a charge for failing to meet the obligations. This charge shall be, to the extent possible, cost reflective and shall not pose any undue barriers on new entry into the European markets or on cross-border trade. The network code on gas balancing shall prohibit the imposition of obligations according to which network users are financially settled to a position of zero during the gas day.

The network code on gas balancing shall require the TSO in each balancing zone to publically consult on any specific within-day obligation it proposes to impose, including the methodology and assumptions used in arriving at the conclusion that the conditions set out above apply. The proposal for a within-day obligation shall include analysis of the likely financial impact on network users, the effect this may have on market entry, cross-border trade, hub liquidity and demonstrate that it is not discriminatory. The network code shall require the TSO to seek NRA approval before imposing any within-day obligations. In deciding whether or not to approve such within-day obligations, the NRA shall consider whether the benefits in terms of the economic and efficient operation of the transmission system outweigh any potential negative impacts.

Where a NRA has a concern that the obligations proposed by the TSO may adversely impact on cross-border trade, the NRA may seek an opinion or a recommendation from ACER, based on the provisions of the Regulation (EC) 713/2009 (the "Agency Regulation"). ACER shall monitor the balancing provisions, including within-day obligations and may request the relevant NRA to review any obligations which appear to conflict with the paragraph above.

B. Background to Draft Code formulation and consultation questions

1. Interpretation of FGs

The FGs recognise that the within-day positions of a system have to be managed in order to keep the system within an acceptable operational envelope. Within-day obligations are an option which could be considered by the TSO where otherwise it would need to take balancing actions regarding system position within the day, either through trading in STSP or through the use of balancing services. Any specific within-day obligations, however, will have to meet an extensive range of criteria defined in the FGs.

Within-day obligations (WDOs) may comprise either specific obligations or incentive mechanisms on Network Users to behave, or to encourage behaviour, in a certain manner during the gas day ("impose specific obligations relating to network user's inputs and off-takes during the gas day"), to minimise the need for the TSO to take balancing actions to keep the system within an accepted operational envelope during the day. To meet the policy objective of minimising the role of the TSO, in many systems WDOs are expected to continue to play a key role to support the TSO in keeping the system within an acceptable operational envelope.

Managing within-day position of the system

The balancing regimes need to be developed to accommodate the needs of network users and keep the systems within acceptable physical operational parameters. In the new market environment TSOs have limited or no direct control over e/e flows to/from the system. Given this the TSO may need a combination of options to influence inputs on and/or off takes from the system where this is necessary to keep the system within an accepted operational envelope during the gas day. The TSO basically has two options to influence inputs and or offtakes from the system:

- long-term contracts with a small number of network users that allow the TSO to request flow changes at specific entry and/or exit points
- WDOs which incentivise network users to have entry and exit flows that will keep the system within the accepted operational envelope.

The use of these mechanisms has to be weighed against the objective of market based balancing regimes and the principles and objectives set forth in the framework guidelines.

The FGs posit a number of material and procedural criteria to be used by NRAs in assessing and approving (or not) any WDOs sought to be introduced by a TSO.

The FGs state that where it is necessary to manage within-day position of the network, the NRA shall approve the introduction of a within-day obligation by a TSO -- in particular, when it complies with the following conditions:

- to minimise the need for TSO to take balancing actions in keeping the system within accepted operation envelope it is necessary to incentivise network users to appropriately manage their entry and exit flows during the day, the obligations should be designed in such a way that they keep the restrictions on network users to a minimum while still achieving the objective;
- network users are provided in a timely manner with sufficiently timely and accurate information to enable them to comply with the obligation;
- the main costs to be incurred by network users in relation to their balancing obligations shall relate to their position at the end of the day (and the charges relating to the within-day obligation shall only be a small proportion of any imbalance charges);
- the charge for not meeting the obligation is, to the extent possible, cost reflective and does not pose any undue barriers on new entry into the European markets or to cross-border trade;
- it does not result in network users being financially settled to a position of zero during the gas day;
- it has been subject to analysis of the likely financial impact on network users, the effect this may have on market entry, cross-border trade, hub liquidity and has been shown to not be discriminatory.

A rigorous review of a proposed WDO, potentially leading to a formal approval by the NRA, should assess the use of the WDO relative to the overall efficiency of balancing the network and taking account of the distribution of costs between TSO and network users; stricter obligations on network users potentially increases their cost while reducing the cost for the TSO. Where TSO has cost for managing within-day positions of the network, a WDO can provide a mechanism for attributing these costs to network users, minimising cross-subsidisation between network users.

As the specific design of a WDO will depend heavily on both network topology and flow patterns, ENTSOG, following the discussions in the SJWS and in response to the views of stakeholders and ACER, has worked to analyse and elaborate the criteria defined by ACER in the framework guidelines. A widely held opinion in the SJWS process was that existing WDOs shall be submitted for approval to the relevant NRA within a reasonable period of time following the entry into force of the network code.

2. Rationale for preferred policy options

In a bilateral exchange between ACER and ENTSOG on 2 February 2012, ACER asked ENTSOG to elaborate the criteria (to define how they might be interpreted and applied by NRAs and ACER) and, where warranted, to propose additional criteria.

ENTSOG and stakeholders are of the opinion that the FGs posit the criteria in a manner which is very general. To assess WDOs against these criteria will be exacting for a TSO. A properly articulated rationale also will be essential to pass the NRA's assessment process.

ENTSOG and stakeholders also found that the processes for a TSO proposal to introduce a WDO (by way of a "recommendation document") and that for NRA prior approval lacked precision. Draft Code therefore establishes better defined processes for both, as outlined below.

The Draft Code includes, as requested through the SJWS process, an article for applying the above-mentioned processes to existing WDOs.

i. Elaboration of criteria/conditions in FGs

For a selection of criteria within the FGs (section 4.2), the table below indicates how they have been treated and elaborated in the Draft Code.

Table 3

Criterion as presented in FGs	Criterion as elaborated in Draft Code
System integrity *p. 13, para 1:* This shall only occur where, in order to ensure system integrity and to minimise the need for the TSO to take balancing actions…	**Article 32(2):** Within Day Obligations shall only be used for the purpose of ensuring the system integrity of Transmission System and minimising the TSO's need to take Balancing Actions **Article 33(5)(a)**: …in order to ensure system integrity and to minimise the need for the TSO to take Balancing Actions taking into account the Transmission System's characteristics and the flexibility available to the TSO through buying or selling of Short Term Standardised Products or use of Balancing Services as provided in Chapter IV **Article 34(4)(a):** consider the extent to which this Within Day Obligation will minimise the TSO's use of Short Term Standardised Products and Balancing Services in order to maintain the Transmission System within its operational limits as provided in Chapter IV; **Article 34(4)(e):** assess the requirement that the TSO's Balancing Actions are carried out only to an extent necessary to maintain the Transmission System within its operational limits
Incentives for NU for within-day balancing *p. 13, para 1:* This shall only occur where…it is necessary to incentivise network users to take appropriate balancing actions during the day	**Article 33(5)(a)**: the necessity to incentivise Network Users to manage Inputs and Off-takes during the Gas Day…
Market-based procurement *p. 13, para 2:*shall require that balancing services required for within-day balancing are procured in a market-based manner, pursuant to Section 3 of these FGs.	**Article 33(5)(a):** …in order to ensure system integrity and to minimise the need for the TSO to take Balancing Actions taking into account the Transmission System's characteristics and the flexibility available to the TSO through buying or selling of Short Term Standardised Products or use of Balancing Services as provided in Chapter IV **Article 33(5)(e):** the impact on the Short Term Wholesale Gas Market, including the Liquidity thereof
No undue barrier to cross-border trade *p. 13, para 3*: shall not act as an undue barrier to cross-border trade or to new network users entering the market	**Article 33(1)(a):** A Within Day Obligation and related Within Day Charge, if any, shall not pose any undue barriers on cross-border trade and new Network Users' entering the European gas market **Article 33(2):** The TSO shall publically consult

	stakeholders, including the relevant national regulatory authorities and TSOs in adjacent Balancing Zones, on any Within Day Obligation it proposes to introduce, including the methodology and assumptions used in arriving at the conclusion that it meets the criteria provided in Item 1 above **Article 33(5)(d)**: the effect on cross-border trade, including the potential impact on balancing in any adjacent Balancing Zone **Article 34(4)(c):** establish if this Within Day Obligation represents a barrier to new Network Users' entering the European gas market **Article 34(4)d:** inform the relevant national regulatory authorities in adjacent Balancing Zones and in cooperation therewith consider the impact on adjacent Balancing Zones and any consequential cross subsidies
Sufficient information *p. 13, para 3 (cont.):* shall only be adopted once network users are provided with sufficient information to enable them to comply with the obligations	**Article 33(1)(b):** A Within Day Obligation shall only be applied where the Network Users are provided with sufficiently accurate information in a timely manner regarding their Inputs and/or Off-takes to comply with the Within Day Obligation **Article 33(5)(f):** the Within Day Obligation not being discriminatory **Article 34(4)(g):** consider whether Network Users have sufficiently accurate information in a timely manner to comply with the Within Day Obligation.
Proportionality rule *p. 13, para 3 (cont.):* Any within-day obligation shall not undermine the principle of a daily balancing regime, i.e. the main costs to be incurred by network users in relation to their balancing obligations shall relate to their position at the end of the day in accordance with Section 5 of these FGs (and charges relating to within-day obligations shall only be a small proportion of any imbalance charges).	**Article 33(1)(c):** the main costs to be incurred by the Network Users in relation to their balancing obligations shall relate to their position at the end of the Gas Day **Article 34(6)(f):** have regard to the fact that Within Day Charges constitute a small proportion in relation to Daily Imbalance Charges incurred by all the Network Users over a period of a gas year
Cost reflectivity *p.13 para 3 (cont.):* Where such within-day obligations apply, the TSO may impose on network users a charge for failing to meet the obligations. This charge shall be, to the extent possible, cost reflective and shall not pose any	**Annex I:** 'Within Day Charges' means charges levied by TSOs on Network Users for their failing to fulfill Within Day Obligations. **Article 33(1)(d):** to the extent possible, Within Day Charges shall be reflective of the costs of the TSO for the undertaking of any associated Balancing

undue barriers on new entry into the European markets or on cross-border trade. .	Actions **Article 33(5)(b):** the expected financial impacts on Network Users **Article 34(4)(b):** consider the extent to which any Within Day Charge corresponds to the cost of the TSO for the undertaking of any associated Balancing Actions
No financial settlement to zero *p.13 para 3 (cont.):* The network code on gas balancing shall prohibit the imposition of obligations according to which network users are financially settled to a position of zero during the gas day.	**Article 33(1)(e):** the Within Day Obligation will not result in Network Users' being financially settled to a position of zero during the Gas Day **Article 33(5)(b):** the expected financial impacts on Network Users

Question 24 – *In your view, are the elaborations of the criteria in the Draft Code sufficient? If not, please indicate which ones and how.*

Question 25 – *Do you believe that additional criteria for assessing WDOs are warranted? If yes, please specify which and why.*

ii. Approval process

In spite of the fact that the criteria and conditions to be used by the TSO in recommending a WDO and by NRAs in approving it overlap considerably, ENTSOG proposes in the Draft Code two distinct processes and the respective criteria they are to respect:

- TSO proposals/recommendations [see Article 2 (of Chapter VII) in Draft Code];
- National Regulatory Authority Decision Making [see Article 3 (of Chapter VII) of Draft Code].

Question 27 – *Do you find the respective roles of a TSO and relevant NRA(s) appropriate in the approval of any WDOs? If not, please explain why and how you would re-define the roles.*

iii. Re-approval of pre-existing WDOs as transitional measure

In light of the guidance provided by ACER at SJWS2 in response to questions from participants questions, the Draft Code includes a proposal that where the TSO has existing WDO at the time of this Balancing Network Code entering into force, it shall consult relevant stakeholders, including the relevant NRAs and TSOs in adjacent balancing zones, as per the processes defined within this Chapter.

Based on need for timeliness and on common practice for consultations, the ENTSOG Draft Code proposes that existing WDOs be re-proposed within six months of the Balancing Network Code's entry into force and to publish a recommendation document as provided in Article 2 of that Chapter. It then must obtain approval by NRA to continue the use of the existing WDOs. The sixth-month period for the regulatory approval is proposed on the basis of common practice, or norms, for regulatory approval processes; some stakeholders, though, believe that a one-year period would be more feasible given the analyses and assessments to be done.

Question 28 – *Do you agree that a six-month period is appropriate for a TSO to make a proposal for approval of an existing WDO, including a recommendation document? If not, please propose an alternative and provide justification to support your proposal (and /or to counter the suggested approach).*

Question 29 – *Do you agree that a six month period is appropriate for the NRA to conduct its assessment and approval process? If not, please propose an alternative and provide justification to support your proposal (and /or to counter the suggested approach).*

5.8. NEUTRALITY

A. Corresponding extracts from FGs

For the purposes of the developing Chapter covering VIII - Neutrality Arrangements in the Draft Code, the key sections of the FGs are the following:

> **3. Buying and selling of flexible gas and balancing services by TSOs**
>
> …TSOs shall be cost neutral in relation to their balancing activities, i.e. any net costs or revenues arising from TSO balancing and financial settlement of network user imbalances shall be passed on to network users…

B. Background to Draft Code formulation and consultation questions

1. Interpretation of FGs

The FGs provide that the TSO is cost neutral with respect to all its Balancing Activities.

TSOs provide both transmission and Balancing Services to Network Users. An objective of the FGs is that a TSO shall neither gain nor lose from its Balancing Activities and therefore the TSO shall pass to Network Users any costs or revenues arising from these activities. However, the FGs provide little guidance as to how the concept should be developed.

Taken in conjunction with requirements from the Regulation 715/2009, it is clear that balancing regime charges are to be levied and identified separately from other transmission charges and that the imbalance charges shall be levied on the Network Users that were out of balance at the end of the Gas Day. The FGs also require that the TSO shall only recover from all Network Users, any costs incurred from undertaking Balancing Activities that are not directly attributable to a Network User.

The FGs do not define the extent to which neutrality rules need to be specified in the code. ENTSOG's initial thinking is that the specific formulation of the detail of the neutrality mechanisms shall be a matter of determination for each balancing regime. However as a minimum at least a number of key principles need to be established in the network code to provide an indication of which charges and revenues shall be included in neutrality and an indication of those that might be. By definition the net effect of the cash-flows will be either credited (if the net financial consequence is cash generative) or recovered (if the net financial consequence is a cost) from Network Users. Therefore the resulting Balancing Neutrality Charges (or credits) might be considered a tax which raises the challenging issue of over which tax base should charges (or credits) be levied or credited and how the most appropriate apportionment might be defined.

The Draft Code includes text that envisages a methodology for Balancing Neutrality Charges calculation and apportionment that will be subject to approval by the relevant national regulatory authority.

2. Rationale for preferred policy options

This section provides some background on these issues and request feedback about the level of specificity that might be necessary in the network code with regard to the methodology including its scope, the process for developing and approving the methodology as well as the reporting and information flows associated with neutrality (where these are not covered by information provision (documented in section 6.9 of this supporting document, referring to Chapter IX of the Draft Code).

TSO roles and the interaction with neutrality

The TSO has multiple roles in the balancing regime.

Firstly, the TSO has a balancing role to ensure that it takes the necessary actions to amend Input and Offtake flows to ensure that the system is maintained within an acceptable operational envelope.

Secondly, the TSO has a settlement role to administer the financial flows associated with the operational of the balancing regime.

In both of these roles, the TSO is performing a service to the gas industry at large and therefore shall experience neither a direct profit nor direct loss from the provision of this service.

In its balancing role, it will secure access to necessary markets (e.g. Trading Platforms) and to the purchase/sale of gas as required. Thus the costs associated with accessing Trading Platforms might be costs that the TSO incurs (in its balancing role) but which might be recovered via neutrality (i.e. a part of the TSO's settlement responsibility).

The Marginal Buy Price and Marginal Sell Price will be a direct cash-flow in and out of neutrality and therefore are part of TSO's settlement function role.

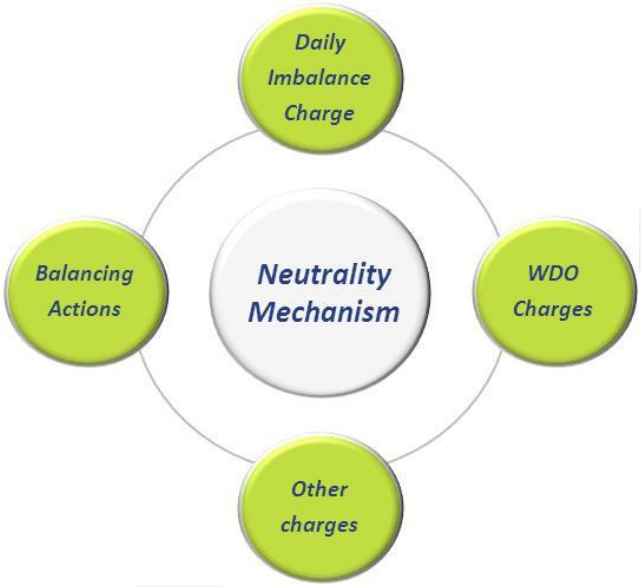
i. Harmonised specifications for neutrality and key elements within

The concept of Neutrality was examined at SJWS2, where ACER stated they did not expect the Balancing Network Code to include a detailed proposal for harmonised neutrality mechanisms. However, some stakeholders indicated that some specification would be appropriate. For example, some stakeholders proposed that credit risk issues in the neutrality regime be addressed – in particular, those that might result from the financial settlement processes associated with imbalance cashout and the settlement of flexible gas purchases and sales by the TSO for balancing purposes might be the subject of security arrangements to manage the network user community's risk of default.

The figure below indicates the four elements that might contribute cash-flows to the neutrality mechanism[13].

[13] Administering the neutrality mechanism will be a TSO responsibility however the task may be delegated to an Agent (e.g., current examples of this are Xoserve in GB and Gas pool and Net Connect Germany in Germany).

Figure 12



Balancing Actions

The TSO may buy and sell gas for balancing purposes (as specified in the Chapter on Operational Balancing and in accordance with the Merit Order). Where STSPs are used, the costs and revenues associated with the transactions are easily identifiable[14]. Costs and revenues can therefore be associated with each balancing action taken and therefore identified against the relevant Gas Day.

Dealing with the costs associated with Balancing Services may require a different approach: certain fixed costs may need to be attributed to the neutrality mechanism over a longer period than a Gas Day (perhaps over a full year in the context of a long term Balancing Service agreement). Thus the methodology associated with the purchase and deployment of TSO's procurement and deployment of Balancing Services may need to deal with this issue.

Daily Imbalance Charge

Daily Imbalance Charges will be calculated for each Gas Day for each Network User and the resultant purchase and sale of gas by Network Users in accordance with the balancing regime rules. Thus, in accordance with the relevant temporal invoicing aggregation and payment/charging cycles, cash-flows will occur into and out of neutrality.

[14] Transparency about both costs and associated energy quantities will be delivered via the Operational Balancing chapter

WDO Charges

While the detailed design of WDO regimes was explicitly excluded from the network code by the framework guideline it is possible that cash flows associated with financial incentives to deliver preferred within-day behaviours may yield incomes.

It is also possible that the WDO obligation regimes are defined to deliver direct payments to some Network Users that might be seen to be delivering favourable flows to support the operation of the system. Thus the WDO charges could comprises a series of charges and credits.

Other charges

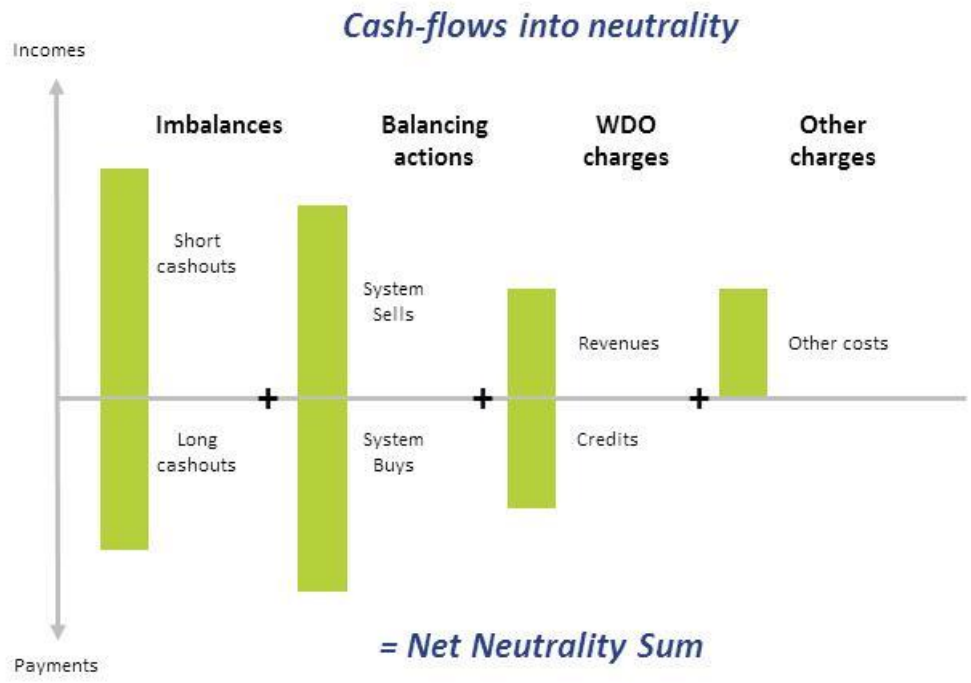
A series of other charges may be considered for inclusion within neutrality e.g.

- cash financing costs
- system development costs to support balancing regime operation
- credit risk charges
- fixed cost recovery for Balancing Services where it might not be appropriate to allocate costs to the utilisation of the service
- nomination accuracy incentives.

The apportionment of these costs needs careful consideration; some may be directly apportioned to a particular Gas Day others may be better apportioned across a longer period of time.

Understanding the components of neutrality

Figure 13



The above illustrates the cash-flows that might feature in neutrality. These costs might be determined on an individual Gas Day or might be determined over a longer period. While the gas quantities bought and sold over the period might be close to zero[15] over a sufficiently long period, it is by no means clear that the financial effects of all of the transactions will be close to zero. Some consideration also may be given to invoice neutrality charges over a longer period on a prognosis basis.

Analysis of the various components that feed into neutrality (both gas quantities and financial cash flows) may provide useful information to assess the overall performance of the gas balancing regime.

In a regime where no WDOs are introduced, costs (from the payment for Network User long positions and purchasers made to balance the system) and revenues (from Network User short positions and sales of gas made to balance the system) are closely matched on each day might be considered to be delivering a fair balancing regime with no undue financial redistributions.

In regimes where WDOs have financial consequences for Network Users, it may be helpful to have greater granularity of data available to assess regime performance. For example gas purchases and sales may need to be classified as to whether they are taken for the within-day or end-of-day purposes to ascertain whether there are any material distortions occurring between the within-day and end-of-day regimes.

[15] Or at least equal to a very small proportion of the total gas flows on the system.

Question 30 – *In your view, is the scope of the currently proposed neutrality section of the Draft Code appropriate? If not, please explain why.*

ii. Transparency of neutrality mechanism

During the network code development process, several stakeholders expressed a view that transparency about the neutrality methodology and also on the financial cash-flows that comprise neutrality are essential. Stakeholders remarked that high levels of net cash-flows being reapportioned across all network users may not be desirable and may indicate that the regime is not functioning well. It was in response to this feedback that additional rules for stakeholder consideration are reflected in the Draft Code, namely:

- TSOs shall publish their methodology on neutrality;
- TSO shall publish aggregate information to allow the overall performance of the regime to be assessed.

Question 31 *– Do you find appropriate the proposed scope of the transparency elements of neutrality? If not, please explain your reasons why.*

Question 32 *– Please indicate the level of granularity you would expect in the context of the breakdown of net Balancing Neutrality Charges cash-flows from both a temporal (e.g. daily, monthly, annual) and cost/revenue element split.*

iii. Cost targeting within the balancing neutrality regime

While a key aspiration of the FGs is to target costs to those that caused them this is not always possible. By definition, the concept of neutrality acknowledges that perfect cost targeting is not possible within the regime.

During the network code development activity (and particularly the SJWSs) academics and some stakeholders have stated that the balancing regime must not allow material cross-subsidy. Those players have suggested that an approximate cost-targeting may be better than none.

Therefore, the Draft Code includes an enabling mechanism. This enables neutrality cost/revenues to be sub-classified into different "pots" that might be apportioned on different bases[16] to provide an improved cost attribution to different classes of network users.

To enable this Draft Code proposes:

- The TSO's Methodology may provide for the division of the Balancing Neutrality Charge components and then apportion the results thereof amongst the Network Users in order to achieve better cost-targeting.

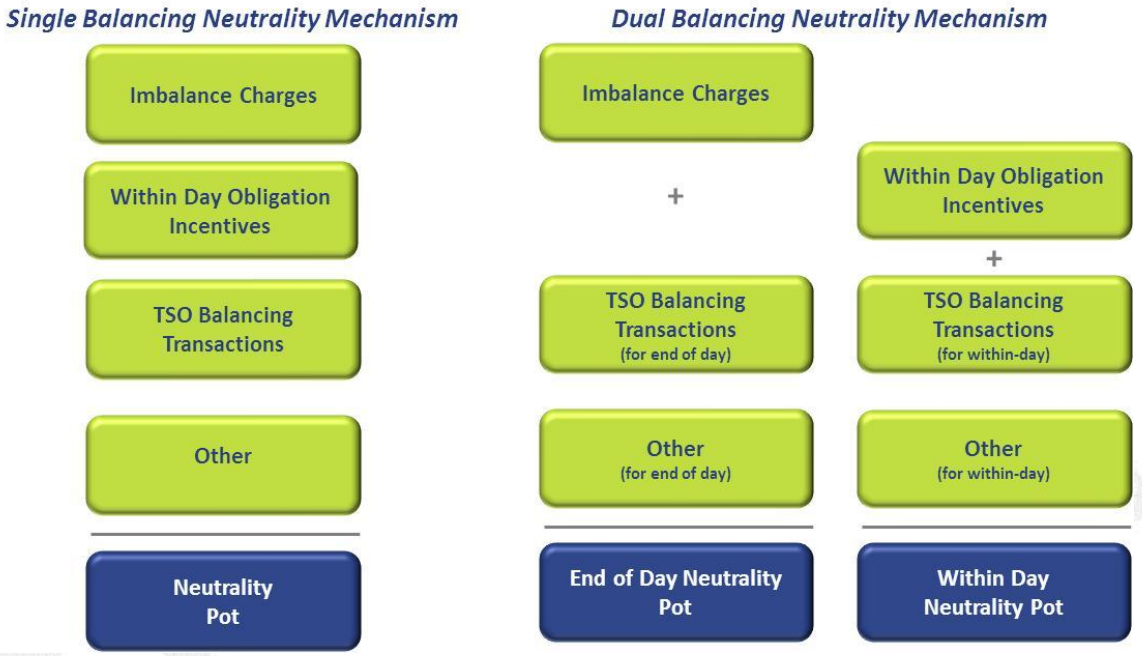
[16] given that precise cost targeting is rarely achievable in gas networks

Improving cost attribution via neutrality

An approach to the recovery of neutrality shortfalls or the crediting of neutrality surpluses would be to attribute in a consistent manner to all Network Users. Many possibilities exist for such attribution including based upon capacity holdings, actual flows or possibly even as function of imbalance quantities.

However, an alternative might be to consider different approaches to the balancing neutrality mechanisms. For example in some systems it might be possible to divide costs and revenues associated with end-of-day balancing from those that might be considered to be the result of requirements to maintain acceptable within-day flows of gas on and off from the system.

Figure 14

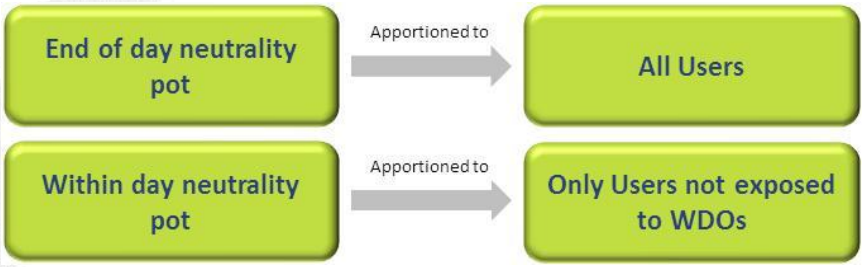


Depending upon the structure of the regime -- and in particular, the formulation of any WDOs and their associated charging structures, those users exposed directly to WDOs would only face neutrality exposure arising from the end-of-day neutrality pot. In cases where any charges from WDOs are incurred, then these would be returned to those exposed to the within-day neutrality pot effectively offsetting some of the socialised costs arising from the TSO's within day system management costs.

The apportionment of the neutrality "pots" can then be made in the manner considered most appropriate.

For example, some end-consumers might have WDOs designed to ensure that relevant Portfolios achieve a tight within-day matching of Input and Offtake gas profiles. Under these circumstances, some stakeholders argued[17], it would not be appropriate for those users to receive additionally charges associated with the management of within day costs. In such a case, an attribution of the separated neutrality pots might be in accordance with the figure below.

Figure 15



Question 33 – *Do you agree that there would be potential benefits of attributing Balancing Neutrality Charges to different pots and of recovering them over different classes of network users? If yes, please explain why.*

Question 34 *– If you support multiple neutrality pots, how would these be defined? How could such different attribution processes be applied in practice?*

iv. Cash-flow management

Cash-flows through neutrality may well be quite considerable. It is envisaged that the TSO's purchase and sale of STSPs for Balancing Actions will be invoiced and settled on a monthly basis. It is therefore possible that the invoicing arrangements for balancing charges/credits are co-ordinated for all elements so that payment due dates are aligned.

Therefore, monthly invoicing for Balancing Neutrality Charges might be anticipated. This monthly invoicing could detail daily charges (where neutrality is applied on a daily basis), a monthly basis (where neutrality is applied on a monthly basis) or even billing on a provisional forecast basis (where this is considered preferred). This definition (of neutrality invoicing arrangements) will be provided within the TSO's methodology (which could be directly incorporated within the TSOs balancing contract with its Network Users).

It is not intended that the Balancing Network Code is prescriptive in this area.

[17] IFIEC Europe, based on presentation at SJWS4 and written submission during SJWS process.

Question 35 – *Is the level of specification in the Draft Code for cash-flow management appropriate? If not, how do you propose it be amended?*

v. Simplified Invoicing of neutrality mechanism

While Balancing Neutrality Charges could be invoiced separately it may be possible to recover these costs / revenues via other adjustment methods including an adjustment to transmission charges. Views are sought as to whether, given potentially lower implementation and operational costs neutrality cash-flows might be addressed via other charge adjustments.

Question 36 – *An alternative to creating additional costs for invoicing systems and processes is to address neutrality sums via adjustment to transmission charges. Do you agree with such an alternative? If not, please explain why.*

5.9. INFORMATION PROVISION OBLIGATIONS

A. Corresponding extracts from FGs

For the purposes of the developing Chapter IX – Information Provisions Obligations in the Draft Code, the key sections of the FGs are the following:

> **6. TSO information provision obligations**
>
> The network code on gas balancing shall require TSOs to set out the detailed information in compliance with the provisions outlined below.
>
> The network code on gas balancing shall provide that aggregate network user input and off-take information is 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.
>
> It is also important that network users are aware of TSO actions to buy and sell gas from network users or other TSOs. Regular information is also required on the overall status of the system in accordance with Chapter 3 of Annex 1 to the Gas Regulation. Consistency across Europe is also required in how information is published to prevent information barriers hindering cross border trade. This information shall be published in English as well as the local language in a harmonised format, to be defined in the network code.
>
> The network code on gas balancing shall require TSOs to provide, free of charge, to each network user the available information regarding its inputs on to and off-takes from the balancing zone at appropriate intervals during the balancing period in order for network users to be able to balance their portfolios. Appropriate intervals shall be at least twice a day or more frequently if necessary to enable network users to meet their balancing requirements, and to comply with any within-day obligations (as set out in Section 4.1).
>
> Within 2 years of adoption of the network code, TSOs shall assess the costs and benefits of more frequent information provision and shall consult stakeholders on this assessment, in cooperation with DSOs where they are affected. Based on this assessment, the relevant NRA may require more frequent information provision from the TSOs to the network users. Until such an assessment has been completed and any changes implemented, network users may be subject to less onerous balancing obligations if transitional arrangements are agreed by the relevant NRA (for example through the application of interim measures as set out in section 5.2). These arrangements, once agreed, are notified to ACER.

The network code shall require DSOs to cooperate with TSOs and provide relevant information to enable TSOs to comply with the requirements on information provision set out in this Section.

In the absence of information being metered during the balancing period and in order to facilitate new entry, the network code on gas balancing shall oblige TSOs to provide detailed forecasts of off-take volumes for non-daily metered customers at the day-ahead stage. The TSO shall provide updates of this forecast at appropriate intervals during the balancing period, at least twice a day, unless network users are able to fulfil their balancing obligations with information provided day-ahead, e.g. they are cashed out against day-ahead off-take forecasts.

Point 3.4(5) of Annex I to the Gas Regulation shall apply.

B. Background to Draft Code formulation and consultation questions

SJWS discussions indicating that the FGs contained some ambiguity in respect of information provision when considered in the context of the very different balancing regimes currently operable in Europe. Therefore, to minimise ambiguity in the Draft Code and to avoid future misinterpretation problems at the time of implementation, the SJWSs devoted considerable time to exploring definitions/precisions of terms used in the above passage of the FGs, such as “available” and “or more frequently if necessary to enable network users to meet their balancing requirements”. These discussions were supported by the outputs of extensive and detailed interaction between an ENTSOG-DSO task force that has explored these issues in frequent conference calls and many meetings.

Available information

The FGs read quite straightforward in terms of information. However, at the Launch Meeting (13-14 December 2011), stakeholders raised the issue what did the term “available” in this context.

The preferred approach has been a bottom-up one to remove the word available from any network code so stakeholders are quite clear on what information will be provided. Extensive collaboration with the DSO representatives has also taken place. Similarly the word “available” has not been included in the information requirement from the DSOs.

For this bottom-up approach, a description in demand off-takes was needed. It results in the definition of three different categories, mirroring the current situation in metering information.

Table 4

Non Daily Metered Offtake (NDM)	an Offtake for which the meter value is read and collected less frequently than once per Gas Day
Intraday Daily Metered Offtake (IDM)	an Exit Point where the gas quantity off taken is measured a minimum of two (2) times within the Gas Day
Daily Metered Offtake (DM)	means an Exit Point where the gas quantity off taken is measured once per Gas Day

Definition of different models (Base Case, Variant 1 and Variant 2)

The FGs specify that "in the absence of information being metered during the balancing period and in order to facilitate new entry, the network code on gas balancing shall oblige TSOs to provide detailed forecasts of off-takes volumes for non–daily metered customers at the day ahead stage. The TSO shall provide updates of this forecast at appropriate intervals during the balancing period, at least twice a day."

Many member states are in this situation. As such, the Draft Code has dedicated the term "**base case**" to this situation. Nevertheless, in other systems, there is information being metered during the balancing period which allows TSOs not to forecast an end-of-day quantity for NDM Offtakes but to apportion the measured flow from the beginning of the day up to the moment of the metering reading and to provide information for not only NDM Offtakes but also DM. In that case, it will not be an end of day quantity, but an allocation for the past hours and this is called "**Variant 1**".

Finally, if one returns to the base case, the FGs refer to a variant regarding the updates within the day. These updates will not need to be provided, if "network users are able to fulfil their balancing obligations with information provided day-ahead, e.g., they are cashed out against day-ahead off-takes forecasts". Therefore, another model, called **"Variant 2**" has been defined. The differences among these cases are represented in the table below.

Table 5

NDM Information	Base Case	Variant 1	Variant 2
Day Ahead	End of Day Forecast	-	End of Day Forecast
Within the Day	End of Day Forecasts	Apportion Flows	-

***Question 37** – Do you agree with the information provision models for Offtakes proposed in the Draft Code fulfil the requirements of the FGs? If not, please explain.*

Frequency of information

Some stakeholders have queried why the phrase "or more frequently if necessary to enable network users to meet their balancing requirements" was not included in the business rules presented. The exclusion is for the same reason the term "available" has been omitted – the approach has been to remove such terms were possible, so stakeholders, TSO and DSOs can all gain a common understanding of the information flows that will accrue. It should also be pointed out that the provision for "sufficient information on within day obligations" has been strengthened significantly in the Draft Code.

The data provided to network users is a "suite" of information. If one examines a particular item in isolation it may appear insufficient. Moreover, the proposal represents a significant enhancement when considered in the context of the whole EU. The question of more frequent information than twice a day will be dealt in the cost benefit analysis, required within the two years of adoption of the code. This topic will be raised in the next chapter.

i. Offtakes

The Draft Code describes the day-ahead and within day information required at a Portfolio level for Offtakes. Building on the FGs, it includes not only day ahead or within day information requirements, but after the day Allocations. This information will support the calculation of Daily Imbalance Quantities.

Additional test for Variant 2

Variant 2 is clearly provided for in the FGs. However, in response to stakeholder feedback, the Draft Code proposes an additional hurdle for those seeking to use this model that do not already have it in place, with a market consultation and an approval of the NRA. The rationale for this hurdle is to justify the use of this variant, as this variant will let the TSO deal with any difference between the day ahead forecast and the allocation, without benefiting from the help of network users response to updates within the day.

This model, it should be noted, can support new entrants who do not face a risk of balancing within the Gas Day.

***Question 38** – Do you agree that prospective implementations of Variant 2 should be approved only after a consultation process? If not, please explain.*

i. Cost/benefit analysis (CBA)

Extensive discussions took place at the SJWS on whether the costs for more frequent information could outweigh the benefits. There is no generic answer to this issue, as each system will differ greatly in terms of:

- Range of categories of customers;
- Current supporting infrastructure in place;
- Number of DSOs, which varies from one to several hundred;
- IT costs

Accordingly, the cost benefit analysis is a very helpful tool in understanding these different factors. Nevertheless stakeholders have expressed a strong desire for more frequent information. The application of any cost benefit analysis may warrant closer inspection to give stakeholders confidence in the process that is conducted.

Following the extensive debate in the SJWS an additional feature (beyond "frequency") might be added to the CBA and this is the time taken to deliver the information to Network users, in particular for IDM offtakes. Stakeholders have argued that information must be delivered in a reasonable time period. Data received several hours after flow information is available may have very little to network users/consumers.

Question 39 – *Do you support the additional proposal that the cost-benefit analysis (CBA) should also examine the time taken to provide information to Network Users? Are there any other features that would strengthen the CBA process ? If so, please explain why.*

ii. Timing of information flows

The framework guidelines provide for at least two information flow updates within the Gas Day, although they do not provide for a specific time for the delivery of this information. The SJWS have stressed there is merit in examining the issue regarding the timing of the delivery of information.

In terms of NDM Derived Forecast, a day-ahead provision of information fixed one hour before the Nomination Deadline in order to give Network Users sufficient time to prepare their Portfolio. For within day the first NDM Derived Forecast is provided one hour later than the day ahead NDM Derived Forecast. However, ENTSOG have not proposed that the second within day update is harmonised. The rationale for this is that external issues may impact the value of the information to Network Users. For example, information may not be useful late in the evening if the Network User does not have access to STSPs on the Shortterm Wholesale Gas Market. This may be particularly relevant in developing markets which are likely to be less liquid than others. Other considerations raised in the network code include the considerations that the later the information the more accurate it is likely to be and that information after the time Network Users can renominate is unlikely to be useful.

Table 6

	Day Ahead	Within Day 1	Within Day 2
NDM Derived Forecast	Fixed	Fixed	Floating
IDM	Not applicable	Minimum Requirements	Floating

In terms of IDM timings, a slightly different approach has been taken due to it being based on actual flows and not being a forecast. Here the Draft Code states the first flows should include four hours flows from the start of the Gas Day in order to provide Network Users a meaningful update. It is also stated that the information must be provided within four hours of this gas flow. This may seem an excessive time to deliver such information and indeed is unlikely to be required in many systems. However some systems require a much greater time due to the complexities involved and also the fact that information accuracy has a direct relationship with timing, i.e. meter readings may not be available first time, errors need to be checked etc. For some, these four hours will be a significant improvement on the current delivery time taken. Nevertheless the Draft Code has proposed that this time is also considered in the Cost Benefit Analysis.

Question 40 – *Do you agree that the Balancing Network Code has to provide guidance on timing of information flows? If yes, do you agree with the proposals set out? If you do not agree with the Draft Code proposals what could the alternatives be and what would be the justification?*

iii. System information

System information is critical information within the day, as it gives Network Users indication on the status of the Transmission System. This information will be linked to the potential actions of the TSO on the wholesale market to balance its Transmission System.

The Transparency Guidelines, established in Annex 1[18] of the Regulation, have been applicable since 3 March 2011. They already describe the level of details required and the frequency needed within the day.

Question 41 – *Do you consider that Transparency Guidelines requirements are sufficient to deal with system information? If not what should be included and what is the justification?*

[18] Commission Decision of 10 November 2010 amending Chapter 3 of Annex I to Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks, *Official Journal*, L293/67, 11.11.2010.

iv. Approach to Inputs

The FGs refer to input information being provided to each Network User. As for Offtakes, different models can exist and so the information provided should to be linked to the rules.

The approach to this topic has been to categorise such points and understand what Network Users might require to balance their portfolio:

- At some points the Allocation equals the Confirmed Quantity meaning this is the figure that Network Users will use to balance.
- At other points the Allocation rules will differ meaning Network Users have a real interest in actual flows. In these cases, two means to provide Network User with the required information are envisaged:
  - Where TSOs have the ability to apportion flows amongst Network Users, it shall provide this information;
  - Otherwise it will supply aggregated flow information.

Figure 16

Question 42 – *Do you agree that the proposal is in line with input information requirements set out in the FGs? If not, please explain why.*

5.10. LINEPACK FLEXIBILITY SERVICE

A. Corresponding extracts from FGs

For the purposes of the developing Chapter X – Linepack Flexibility Services in the Draft Code, the key sections of the FGs are the following:

> **2. Principles for network users and TSO roles and responsibilities**
>
> **2.1. General provisions**
>
> …The network code on gas balancing shall not prevent TSOs from allocating linepack to network users if approved by the relevant NRA. Where linepack is sold, TSOs shall allocate the linepack to network users as a commercial product on a transparent and non-discriminatory basis and 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 shall be based on objective criteria, including the physical characteristics of the networks, whether the provision is consistent with Section 4 of these Framework Guidelines and whether offering a linepack product would facilitate a more efficient use of the system.

B. Background to Draft Code formulation and consultation questions

1. Interpretation of FGs

The FGs state that the Balancing Network Code should not prevent TSOs from allocating linepack to Network Users, if approved by the relevant NRA subject to certain conditions. The FGs also specify that the decision by the relevant NRA to approve the allocation of linepack should be based on objective criteria, including the physical characteristics of the system, whether the provision is consistent with Section 4 of the FGs (i.e., Balancing period and nominations (respectively re-nominations) procedures and whether offering a linepack product would facilitate a more efficient use of the system.

During the SJWS process considerable confusion became apparent among stakeholders about what is meant by linepack. It was questioned whether linepack was an amount of gas in the network or whether it was about the difference in maximum and minimum levels of gas which are acceptable in the system, that which could be called “linepack flexibility.” Therefore, following SJWS discussion an interpretation that the FGs reference was to a ‘Linepack Flexibility Service’ that Network Users could use for their own daily balancing was assumed. In the context of other objectives (explicit and implicit) of other topic sections within the FGs, another assumption was made that the service should only relate to end-of-day quantities (rather than within-day).

With such an interpretation of the FGs, they thus would allow for a Linepack Flexibility Service, provided it meets specific criteria as assessed by the NRA.

2. Policy approach

With such an interpretation, development of the Draft Code here would require simply a translation the relevant FG text, including the criteria mentioned, into draft legal text.

The SJWS found that there was room to add to the existing criteria to prevent potential negative impact from the introduction of a Linepack Flexibility Service on Network Users.

Via the SJWS process, two examples of a Linepack Flexibility Service, namely an implicit and explicit service were examined (Ref SJWS 2 – Linepack Flexibility Service), which promoted discussion about what the exact criteria for assessing the service might be.

Implicit and explicit Linepack Flexibility Services

Linepack Flexibility Services can be split up in two major group:

- Explicit use of the service
- Implicit use of the service

Under an explicit Linepack Flexibility Service a network user can use the service by explicitly notifying the TSO of the use it want to make of the service. The network user either notifies an entry into its linepack service, which will then be considered as an exit allocation for balancing purposes. Similarly, an exit out of the balancing service will be considered an entry allocation for balancing purposes. This way the network user can manage its end-of-day position by notifying gas into or out of its Linepack Flexibility Service.

Where the TSO offers an implicit linepack flexibility service the network user is allocated entries to and exits from its Linepack Flexibility Service based on an agreed Allocation mechanisms and, for example, network user's imbalance at the end of the day. Here the network user has little influence over the amounts of gas that go into or come out of its linepack service.

As a result, the Draft Code proposes the following conditions/criteria to be met before a Linepack Flexibility Service could be introduced:

- the service should not undermine the daily balancing regime principle, ensuring compliance with a key objective for the network code;
- the sale of the service should not result in additional costs to those that do not avail of it, to strengthen the principles of no cross-subsidisation and no negative effect on cross-border trade in the network code ;
- the sale of the service should not result in an increase in the network users' balancing obligations -- and specifically the Linepack Flexibility Service, should not increase the requirements for WDO.

***Question 43** – Do the proposed additional criteria that a Linepack Flexibility Service has to meet complement those in the FGs to make a sufficient set of criteria? Or are additional criteria required? Please provide a reasoned response.*

5.11. IMPLEMENTATION, INTERIM MEASURES AND ENTRY INTO FORCE

A. Corresponding extracts from FGs

For the purposes of the developing Chapter XI – Implementation, Interim Measures and Entry into Force in the Draft Code, the key sections of the FGs are the following:

1.3 Objective

… Where there is a need for the TSO to procure balancing services, it shall do so on the wholesale market on an equal footing with network users. However, where trading on wholesale markets is limited or products needed by TSOs for balancing purposes (such as temporal or locational products) are not available on the wholesale market, it may be appropriate, as an interim step, for the TSO to procure balancing services on a balancing platform, where it acts as the counterparty to all trades of flexible gas. Balancing platforms could be used by more than one TSO, potentially in different countries, where sufficient cross-border interconnection capacity exists.

The network code on gas balancing shall also define a harmonised balancing period of 24 hours with financial settlement at the end of the gas day. Where the TSO needs to take balancing actions within this balancing period, it will procure these balancing services on the wholesale market – or, in the interim, on the balancing platform…

1.5. Implementation

Given the different stages of development of competition and liquidity in the gas markets across Europe, common balancing rules may only be achieved gradually. The network code on gas balancing shall therefore define balancing rules that are consistent with the ultimate goal of a common balancing regime, but that allow for TSOs to implement interim steps, where this may be appropriate. TSOs shall only implement interim steps if the national regulatory authority (NRA) has approved this, based on an assessment of the development of market liquidity.

…

The network code on gas balancing shall require the European Network of Transmission System Operators for Gas (ENTSOG) to regularly review the progress towards its implementation…

2. Principles for network users and TSO roles and responsibilities

2.1 General provisions

…The network code on gas balancing shall require that TSOs, during its implementation, shall not impose barriers to the development of liquid short term wholesale markets…

3. Buying and selling of flexible gas and balancing services by TSOs

…

3.2. Interim measures

Where a wholesale market is insufficiently liquid (or where temporal and locational products required by the TSO cannot reasonably be procured on the wholesale market), the network code on gas balancing shall provide for TSOs to procure their flexible gas and balancing services on a balancing platform. TSOs shall take account of the current level of market development and shall ensure that implementing this interim step facilitates future procurement of flexible gas, including locational and temporal products, on the wholesale market.

Balancing platforms shall only be used as an interim step towards the creation of a liquid wholesale market and may cover more than one balancing zone. This shall be without prejudice to the possibility of NRA to grant exemptions, as specified below. Moreover, the network code on gas balancing shall require TSOs, if using balancing platforms, to buy and sell flexible gas transparently and on a non-discriminatory basis through a system of bids and offers. Any network user shall have the right to participate in the balancing platform.

The network code on gas balancing shall set out criteria on the design of balancing platforms. The network code on gas balancing shall further require TSOs or the undertaking responsible for establishing the balancing platforms, to consider whether a joint balancing platform with neighbouring balancing zones might be established, in accordance with the provisions in Section 7. Where there is sufficient interconnection and proves efficient, a joint balancing platform shall be established for more than one balancing zone. The network code shall specify the arrangements for TSOs to cooperate in creating and using such joint balancing platforms.

The network code on gas balancing shall allow TSOs to seek from the NRA an exemption from the requirement to establish a balancing platform and instead obtain the permission to enter into a contract with one or more providers of flexible gas. For smaller markets, the network code shall allow TSOs to request from the relevant NRA to include flexible gas in LNG facilities as part of the balancing zone. Either of these exemptions shall only be granted where the TSO has proved to the NRA that, as a result of insufficient interconnection between balancing zones, a balancing platform would not increase liquidity in the markets for flexible gas products and balancing services and would not enable the TSO to balance the system more efficiently. The price and the terms and conditions as well as the duration of this contract should be published and approved by the relevant NRA. The NRA shall notify its decision, including the justification and all relevant information, to ACER without delay. Within 3 months of receipt of that notification, ACER may request the concerned NRA to amend its decision.

Where long term contracts for the procurement of flexible gas are already in place and provide TSOs with an option to take specific volumes of flexible gas, the network code on gas balancing shall provide for the volumes of flexible gas covered by the option to be

reduced. The network code on gas balancing shall include arrangements for TSOs or the undertaking holding the flexible gas to release back to the market any surplus gas which is not required for balancing purposes in any given balancing period, in order that network users have access to greater volumes of flexible gas. ENTSOG shall consult on the rules of procedure for the release of flexible gas. The relevant NRA(s) may set targets regarding the proportion by which these long term contracts should be reduced in order to increase liquidity in short term gas markets.

Compliance and monitoring will be followed up based on the provisions of Section 8.

5. Imbalance charges

…

5.2. Interim measures

Where, because of insufficient liquidity in the wholesale market, the TSO uses one of the interim measures named in Section 3.2 for procuring balancing services, the imbalance charge may be based on an administered price or a proxy for a market price. This proxy may be based on the prices in different wholesale gas markets. The imbalance charge may then include a small uplift or reduction in order to incentivise network users to balance their portfolios. This charge should not deter new market entry and must be approved by the relevant NRA to ensure that it still provides an appropriate incentive for the network user to balance its portfolio.

The network code on gas balancing may provide network users with tolerance levels that shall reflect genuine system flexibility and user needs. These tolerances may be free of imbalance charges. Rules for the level of tolerances allocated to categories of network users shall be approved by the relevant NRA and designed so as to not create discrimination, in particular against network users with smaller gas portfolios. Tolerances may be introduced as an interim step which applies where network users do not 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…

8. Transitional period, compliance and monitoring

The network code on gas balancing shall specify that within 12 months after its adoption TSOs shall comply with its requirements. This includes the adaptation of existing contracts and, where relevant, national network codes. NRAs may allow, taking full account of ACER's opinion, for an additional 12 months for the requirements to be implemented, provided that TSOs are not implementing any of the requirements set out as interim measures.

Where TSOs implement any of the interim measures, TSOs shall send a report to the relevant NRA and to ACER explaining why the conditions for these interim measures are met. The report shall propose a roadmap, including a plan for moving away from the interim measures at the latest within five years of the entry into force of the network code. This report shall be proposed for approval to the NRA and for information to ACER every twelve months. TSOs shall publically consult on these reports before their submission to the NRA and ACER. ACER will monitor these reports according to Article 9(1) of the Gas Regulation. The competent NRA, taking full account of ACER's opinion, shall approve the roadmap or may require the TSO to modify it. ACER may request the concerned NRA to amend its approval decision.

B. Background to Draft Code formulation and consultation questions

The FGs foresee:

- Possible use of interim measures for up to five years where the wholesale market is insufficiently liquid;
- TSOs to propose a roadmap of any use of interim measures, which will be the subject of consultation and which shall be approved, or modified, by the NRA;
- The roadmap will be updated and approved as necessary;
- Interim measures comprising: Tolerances, Balancing Platforms, TSO release of surplus gas flexibility and interim cash-out price determination.

Other interim measures to foster market development may be helpful and therefore the Draft Code envisages that other enabling mechanisms may be useful in the transition including Portfolio nominations (respectively re-nominations rules that help focus liquidity and additional transparency (at TSO discretion) about announcement of its balancing action requirements.

1. Interim step derogation & the liquidity assessment

The FGs imply that TSOs will be able to implement interim steps towards the mature regime[19] envisaged in the Balancing Target Model (BTM), where this may be appropriate and the NRA has approved this, based solely on an assessment of the development of market liquidity.

[19] ENTSOG refers to the mature regime as the Balancing Target Model (BTM)

Liquidity

- FGs have a good definition capturing the aspiration that liquidity is the ability to quickly buy and sell reasonable volumes of gas without causing a significant change in price and without incurring significant transaction costs.
- The definition however is very subjective e.g. how should 'quickly', "reasonable volumes", "significant change in price" and "significant transaction costs" be interpreted?
- The definition also has to be considered in the context of the relevant market. The FGs also indicate that the assessment of market liquidity shall include a consideration of volumes traded, churn rates and the number of players active on the market.
- The CEER European Gas Target Model conclusions paper[20] [see footnote 2] indicates a series of indicators to inform a consideration of a functioning market:
  - "Churn rate" above 8;
  - A Herfindahl-Hirschmann Index (HHi) below 2000;
  - Gas available from at least three sources;
  - A total annual gas demand of at least 20 bcm;
  - A Residual Supply Index (RSI) of more than 110% for more than 95% of days.

The liquidity assessment for interim measures, however, would need to be made in the context of the potential for a shorter term balancing market that might be localised because of the underlying physics of gas transmission.

Stakeholder feedback - Liquidity

Very limited feedback has so far been received from stakeholders:

Parameters to consider in respect of the title market could include:

- Visibility of price spreads: bid-offer spread should always be less than 5%
- Volume bid and offered: expected depth should be at least five bids/offers
- Number of participants: at least four market participants to be seen both sides of market

Stakeholders recognise that in the locational markets even lower levels of liquidity may have to be deemed to be acceptable to ensure delivery of the Balancing Target Model.

***Question 44** – How should the short-term balancing market be defined? What account of temporal and physical flow considerations needs to be made? What measures should be used to assess liquidity in the short-term balancing markets?*

[20] CEER Vision for a European Gas Target Model Conclusions Paper C11-GWG-82-03 1 December 2011

2. Roadmap determination

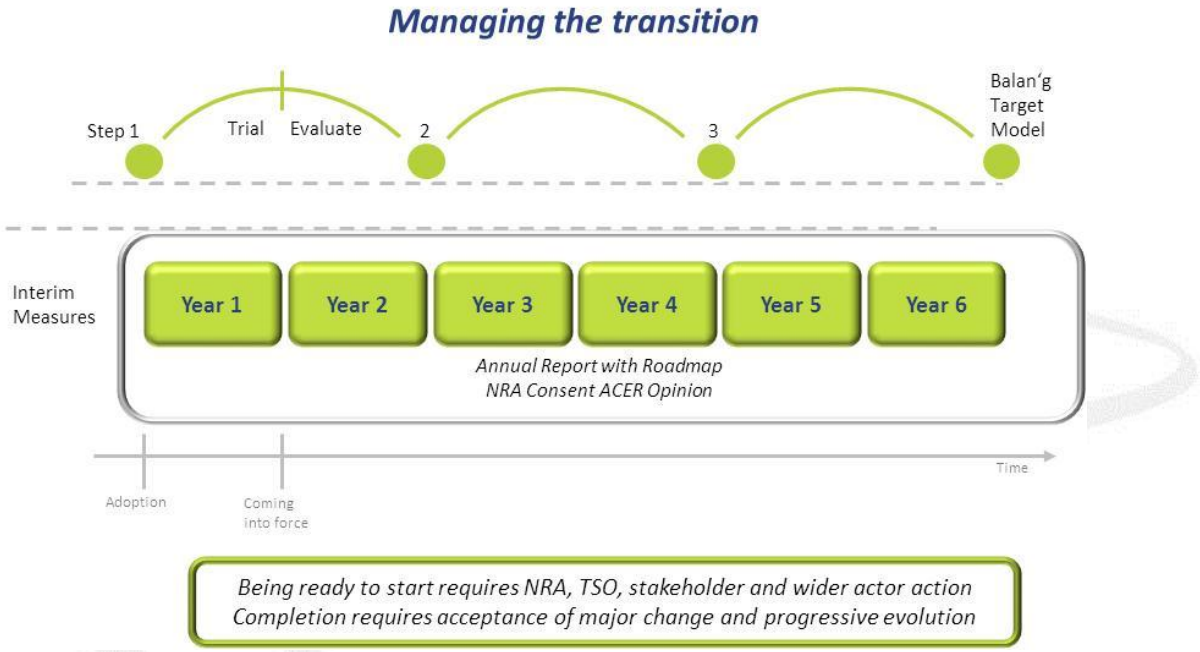
The FGs imply that the TSO shall draft a roadmap that will be submitted to NRA and ACER and which will be the subject of an initial approval by the NRA. The NRA will be able to mandate changes, including taking full regard of the opinion of ACER. The roadmap should define a plan for moving away from all interim measures within five years of the Balancing Network Code coming into force.

Progress will be reviewed on an annual basis and may lead to a revision of the roadmap.

- Constructing the Roadmap
  In many parts of Europe a series of steps will be needed to manage the transition. A deep, liquid short-term balancing market will not develop overnight and therefore a sequence of steps will need to be constructed to enable progression towards the full implementation of the Balancing Target Model.
- Elements for the roadmap
  The FGs explicitly recognise the possibility of using Balancing Platforms, Tolerances, Release of TSO's surplus gas flexibility and interim cash-out arrangements.
  Other approaches could be used and that these could also be included in the roadmap proposals and therefore subject to approval by the relevant NRA.
- Defining the successive steps
  Each step in the progression may involve a number of each of the individual elements. The combination of elements will need to be carefully constructed and will depend on a range of local circumstances including the underlying physical network topology and the state of wholesale market development.
  An initial migration plan shall be defined in the first roadmap. Progress shall be monitored and the roadmap updated as appropriate in the light of experience. The TSOs will report on progress each year and will consider whether the roadmap needs to be amended, and if so, seek approval for any changes.
  The reporting may include financial assessment of cash-flows through neutrality. Some steps may incur some costs and cross-subsidies in the short term that may be necessary to "kick-start" the proper functioning of the market but which will increase liquidity in the longer term and which therefore will generate enhanced benefits for consumers in the future - case of investing now to achieve benefits later.

- Frequency of step changes
  Ideally a step (comprising a combination of the individual elements) would be implemented for a full 12 months period and then evaluated before the next step is taken. This would allow the assessment to be made over a wide variety of circumstances (including winter/summer, high/low demands, and storage filling seasons) and allow full consultation with local network users before a change is introduced at the start of the next gas year. This is depicted in the illustration below.
  However, this would only allow a maximum of three steps during the available transition period, and even this would require that TSOs are ready to start the first step as soon as the network code is adopted by the EU institutions.
  Therefore it may be essential to contemplate shorter time periods between the steps to ensure that the Balancing Target Model can be achieved within the permitted timescale.

Figure 17



- Access to flexible gas
  A key enabler will be short-term access to flexible gas and while the Balancing Network Code (and particularly interim measures) may better enable this it is essential that wider market players contribute to enabling access to flexible gas.

Case study – Great Britain

- The GB transition period lasted from March 96 to September 2002
- During the early period British Gas held a substantial proportion of physical gas flexibility by virtue of its historical sole supplier status before market liberalisation
- Via undertakings with the national regulatory authority it agreed to post surplus available flexibility into the TSO's Balancing Platform (the "Flexibility Mechanism"). The undertaking included a maximum buy-sell spread that could be used on any Gas Day.
- This approach provided an assurance to the TSOs that flexible gas would be offered into the market therefore enabling TSO use of the Flexibility Mechanism and providing a stimulus to other Network Users to offer or bid gas into on this platform.

Case study – Italy

- In the current Italian balancing mechanism, shippers taking part to the balancing market have an obligation to submit bids on the market for the amount of gas corresponding to the injection and withdrawal storage capacities at their disposal with regard to purchase and sales bids respectively. Storage being the only balancing source so far allowed for re-nomination.

Indeed, in addition to the obligatory offer criteria, shippers can also voluntarily decide to offer amounts of gas greater than their storage injection and/or withdrawal capacity. The maximum quantities that can be offered are established, for each user, from the amount of gas available to them in storage (for sales bids) and from the residual storage space capacity (for purchase bids).

***Question 45** – What other measures might be contemplated to enable wider access to short term gas flexibility? Are any of these approaches appropriate for inclusion in the Balancing Network Code?*

3. Balancing platform (and further alternative approaches)

A Balancing platform is a trading platform on which flexible gas is bought and sold and the TSO is party to every trade.

The FGs indicate as an interim measure that TSOs shall be able to procure flexible gas and balancing services on a balancing platform provided:

- that this interim step facilitates future procurement of flexible gas, including locational and temporal products, on the wholesale market
- it is transparent and enables non-discriminatory usage
- it allows network users to bid and offer flexibility.
- any network user can participate
- it meets a high level specification (criteria) for its design.

The use of a Balancing Platform is only permitted as an interim step pending the development and use of a Trading Platform. Where the Balancing Platform covers more than one balancing zone, it is necessary that the arrangements for TSOs to co-operate in creating and using such a joint balancing platform are defined.

For the interim period (prior to Balancing Target Model implementation), the NRA may grant other approaches to the requirement to establish a Balancing Platform either

- allowing the TSO to contract directly with a provider of flexible gas
- for smaller markets flexible gas in LNG can be considered part of the balancing zone.

LNG being considered as part of the balancing zone

- ENTSOG is not aware of the circumstances in which this exemption might be used and what it might achieve.
- For example it is not clear whether the intent is to allow the TSO to use the facility to manage its balancing activity and how such service might interact with, for example, individual Network User daily imbalances, cash-out price setting and how neutrality arrangements might function.

ENTSOG therefore asks stakeholders for feedback as to the definition of small market and the aspiration of the intent and possible implementation of the FGs in this area so that ENTSOG can formulate how it might develop a network code proposal in line with the FG.

***Question 46** – In your view, what would justify including LNG in the Balancing Zone in "small markets" and in short term transitional arrangements? Do you see any conflict with these reasons and the BTM to be established by the eventual Balancing Network Code?*

Either of these exemptions can be utilised where TSO proves to the NRA that, as a result of insufficient interconnection between balancing zones, a balancing platform would not increase liquidity in the markets for flexible gas and would not enable the TSO to balance the system more efficiently.

The price and the terms and conditions should be approved by the NRA and published. The justification and all relevant information shall be notified to ACER without delay. ACER may request the concerned NRA to amend its decision.

4. Tolerances

The FGs state that the network code may provide network users with Tolerance Levels. The FGs provide for tolerances in circumstances where network users do not have access to a liquid Short-term Wholesale Gas Market or to sources of flexible gas. The tolerance levels shall reflect genuine system flexibility and user needs.

Preferred policy option

The tolerance regime may be contemplated in a situation where the Network User might be considered unable to manage his exposure and therefore it is fair to socialise any costs that might arise from at least part of his imbalance. There are two overarching tolerance structures that can be provided within the framework of the regime being designed; namely carry-over or price tolerances.

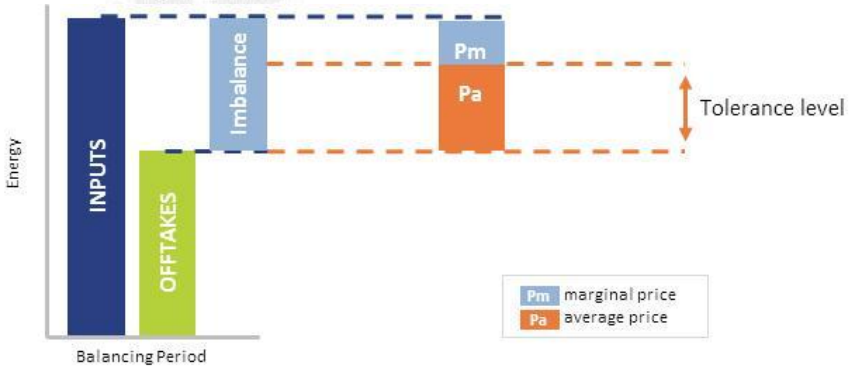
The SJWSs considered the carry-over tolerance approach. However the SJWS concluded that this approach is counter to the concept of daily balancing where it is preferable to cashout all imbalances on a day. This approach is considered preferably because it better attributes costs to a day, prevents accounting complications arising from the interdependence between days and also provides for an easier transition to the preferred outcome of imbalance cashout at marginal prices.

Therefore, this section and the Draft Code focusses on price tolerance approaches.

Price tolerances

The figures below demonstrate how a price tolerance would be applied. The settlement processes extinguish the Daily Imbalance Quantity, but the full Daily Imbalance Quantity might not be cashed out at the Marginal Prices. The approach is that any imbalance within a tolerance level is cashed out a price that implies a reduced exposure when compared to the Marginal Price. Typically, the within-tolerance component of the imbalance quantity is cashed out at what might be considered to be an average or a fair price rather than the Marginal Price which is considered to provide a stronger incentive.

Figure 18



Proposal

In the Stakeholder Joint Working Sessions (SJWSs) ENTSOG described variants on the price tolerance featuring more complicated price arrangements where intermediate prices could be used to the within tolerance price at variable prices between an Weighted Average Price and the Marginal Price depending upon the amount of tolerance utilised.

Additionally ENTSOG presented specific approaches to derive individual Network User tolerances based upon combinations of fixed (common tolerance allowances for all Network Users) and other components based on an individual Network Users portfolio. The SJWSs concluded that the Balancing network code should not be prescriptive but that the roadmaps should be used to define the basis for tolerance setting having regard to the requirements defined in the FGs. Specifically the SJWS supported the inclusion of an explicit reference that a mechanism to provide for a tolerance derived from a consideration of the difference between NDM Offtake Allocations and NDM Derived Forecasts (see below). The SJWSs confirmed a desire to keep the tolerance regime simple and consistent with the aspiration of daily balancing by indicating a preference for the price tolerance regime with within-tolerance cashout based upon an average price.

Question 47 – *Do you agree that the tolerance used should be a price based tolerance? If not please explain your rationale and provide your preferred approach.*

Question 48 – *In your view, should the reduced exposure involve the application of a Weighted Average Price? If not, please explain your rationale and provide your preferred approach.*

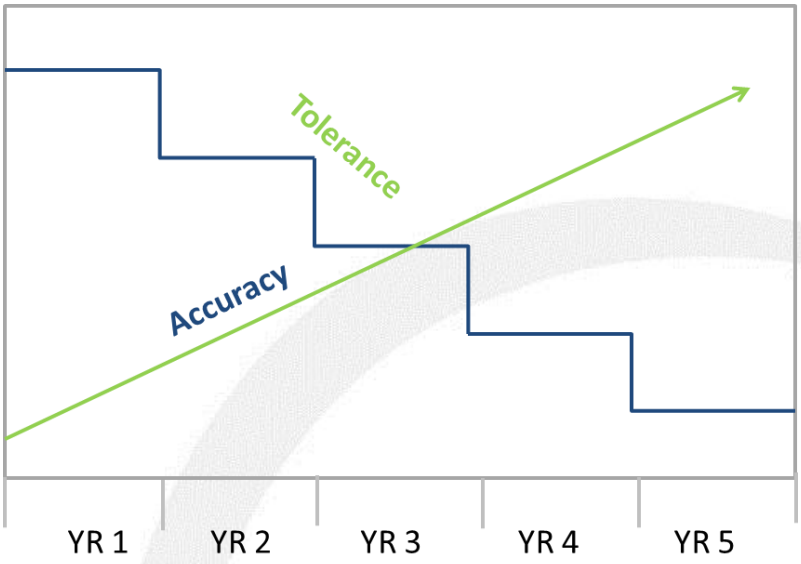
Additional criteria for Tolerance

The FGs link the need for Tolerances to access to flexible gas by Network Users. During the SJWS process, stakeholders indicated that accurate information was important for Network Users to manage their risk and in the event they did not have this that tolerances should be used to deliver acceptable exposures and with an acceptance that some socialisation of costs is appropriate.

As a consequence, a new criterion for Tolerances has been introduced; that Network Users shall have sufficient information regarding their Inputs and Offtakes.

The SJWSs paid particular attention to the issues associated with information about NDM Offtakes.

Figure 19: NDM Tolerance Illustration



For many countries, the provision of NDM Derived Forecasts or apportionments will be a new requirement, it will take time to establish accuracy. Consequently, the introduction of tolerances with both an accuracy requirement and with incentives to phase them out within the next five years after the adoption of the Balancing Network Code would seem sufficient to reach the balancing target.

Question 49 – *Do you support the Draft Code including provisions for the accuracy of forecast information provision to ensure timely phase-out of tolerances? If yes, explain how this can be best established.*

The challenge of NDM forecasting

While individual consumers may have very diverse patterns of both daily and diurnal (within day) demands the gas industry has found ways to forecast aggregate demand so that it has been able to source gas to meet demands and maintain security of supply. This forecasting has involved aggregate demand levels often using weather variables (e.g. temperatures/wind speeds) to inform the aggregate demand projections.

New market requirements require that demand forecasts and allocations for portfolios. Given that it is not expected that all consumers will have daily (or more frequent) meter readings then an algorithmic approach will be necessary to produce these forecasts and algorithms.

Experience in the more developed gas markets indicates that adequate demand attribution approaches can be developed to support the daily balancing regime. Furthermore within day demand profile attribution can also be developed for regimes where within-day obligations exist.

The key features of an acceptable demand forecasting and attribution processes may include:

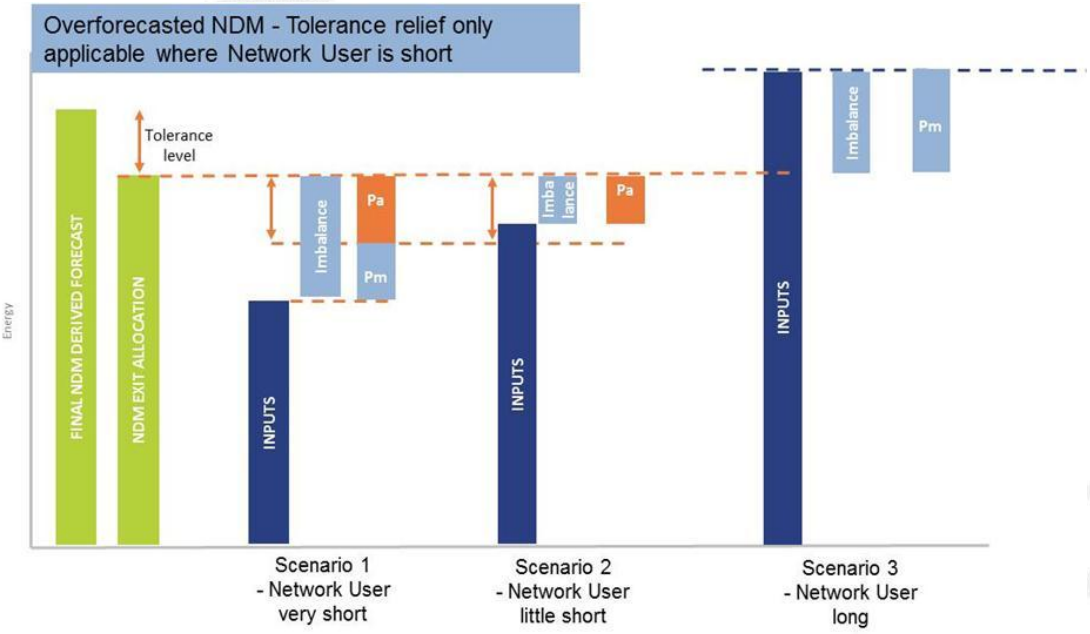
- the definition of a series of end-user categories into which individual consumers will be classified;
- the definition of "Load Profiles" which will define the shape of anticipated demand for this category, representing an average or typical profile and which may include sensitivity parameters that will enable key variables (such as temperature/wind speed) to be used to better reflect demand;
- the provision of accurate and timely updates of network users portfolio information, this may include number of sites or a measure of total expected annual demand for this network user and this category;
- a process to calculate the aggregate expected demand for the network user;
- where possible, further refinement, or scaling of the demand projections, to take into account an aggregate position for the NDM load (e.g. where a global forecast of demand (in forecast mode) or a derived quantity for NDM offtakes (in allocation mode) may be available. This process requires collaboration in a number of areas:
  - the development of the demand attribution algorithms;
  - the maintenance of the necessary portfolio information;
  - the development of overall NDM "forecasting approaches".

It may therefore be necessary to introduce such approaches quickly but with a view to refine them to deliver better accuracy as the algorithmic approach is refined.

The NDM Forecast Deviation Adjustment

The Draft Code envisages that an approach to provide some risk mitigation against exposure to the difference between the final NDM Derived Forecast provided to Network Users and the NDM Exit Allocation. Where an imbalance is aligned with the difference between forecast and allocation then a Tolerance is available up to the extent of the difference. The following graphic illustrates how the relief might be applied in a situation where the NDM Exit Allocation is less than the final NDM Derived Forecast.

Figure 20



A similar approach is envisaged in the Draft Code for the alternative position where the final NDM Derived Forecast is less than the NDM Exit Allocation.

Question 50 – *Does the Draft Code provide an appropriate mitigation of risk involved in servicing NDM demand? If not, please indicate an alternative approach and its rationale.*

Daily balancing end-of-day tolerance regime parameters

Tolerances provide a means to shield Network Users from both volume and price risk in the daily cashout regime.

Tolerances should reflect a genuine user need (to mitigate exposures that are unwarranted) and should also reflect system requirements. There may be tensions trying to satisfy these potentially conflicting aspirations.

The application of a price based tolerance as advocated in the Draft Code may increase the level of socialised costs and so during the interim steps it may be particularly relevant to monitor the level of Neutrality Charges. Some socialisation of costs may be essential to foster market developments.

The FGs advocate tolerances as interim measures only and so the tolerances should be initialised and then reduced as soon as reasonably practical. In this context, case histories can be valuable. For example, in GB the initial tolerances were set as in the table below.

Table 7

Entry/Exits	**Tolerance**	**Rationale**
Entry flows	2% of allocated quantities	Upstream quantities are generally subject to some uncertainty
Exit flows (IDM/DM)	3% of allocated quantities	To reflect genuine uncertainties
Exit flows (NDM)	NDM Forecast Deviation Adjustment mechanism	To encourage Network User to use provided forecast as his allocation estimate – approach grants relief where imbalance aligned with NDM Allocation versus NDM final forecast difference

These Tolerances were progressively reduced over a series of steps until all were removed. Liquidity improved as Tolerances were reduced and Network Users become more active in respect of both forecasting and managing their own imbalance exposures.

5. Release of surplus flexibility

The FGs recognise that TSOs holding surplus flexibility above their balancing needs may have a role to offer this flexibility, as a stimulus, into the short-term market. The FGs also recognise that the TSO shall aim to reduce the volumes procured under long term contracts.

Question 51 – Do you agree that the Draft Code provides an adequate basis to support the release of surplus TSO flexibility as a stimulus to the market? If not, please explain why.

6. Imbalance cashout

Without a liquid wholesale market the Marginal Price definitions included in the Daily Imbalance Charges chapter might not deliver robust cashout prices and therefore might expose Network Users to inappropriate risk.

The FGs therefore provide for alternative cashout price derivation based upon an administered price or a proxy for a market price. A third option has been introduced into the Draft Code: that cashout prices may be derived taking account of Balancing Platform trades.

The idea here is that the approach might act as a stimulus to market development. Cashout prices could be set based on the prices transacted on the Balancing Platform (which might be for locational or temporal gas). This would signal the value of physical flexibility and therefore act as a stimulus to the competitive provision of flexibility onto the Balancing Platform; thus creating a "virtual circle" to enhance early market functioning. Use of Balancing Platform marginal prices for cash-out would also provide a further incentive on the delivery of gas taken for balancing purposes.

Thus the use of Balancing Platform may offer some opportunities particularly when used in conjunction with tolerances during the transition period.

Question 52 – *Do you agree that there is merit in including a reference to Balancing Platform trades in the interim imbalance cash-out price determination part, as suggested in the Draft Code? If yes, how should the approach be formulated and what merits would it have?.*

7. Additional interim measure required

The FGs provide explicitly for all of the elements in the above section. However, there are other elements that could be used to facilitate evolution of the market and in particular the required liquidity.

This section highlights one approach that might be of merit in some transitional arrangements and also requests any other approaches that might be considered appropriate for potential inclusion in the code.

i. Portfolio nominations (respectively re-nominations rules to focus liquidity

The Balancing Target Model does not contemplate any restriction on portfolio nominations (respectively re-nominations rules implying that network users should be able to change their positions whenever they like and to any extent of their choice.

This may be problematic for some regimes in the early phases of transition until such time as a deep liquid short-term market is established. Therefore some rules surrounding the Portfolio nominations (respectively re-nominations rules may be necessary.

Two variants might be envisaged and these might be used as a sequence in some systems:

- Network users to balance at day ahead and then have opportunity to track demand changes For a short transitional period, and in some systems, it may be helpful to require network users to nominate a balanced position at day ahead (taking account of anticipated physical entry and

exits from the system and net traded position). Given the rules in {info provision reference] Network users will then receive periodic information about their anticipated imbalance position at least twice within day. Just after the time of information release to individual network users, and the release of overall system status to all market players, some liquidity might be encouraged via the short-term trading of willing buyers and sellers.

- Network users to fix an imbalance position but to be able to track subsequent demand change For a transition or perhaps second transitional period after the above, a network user could be allowed to start the day with an imbalanced position for the upcoming day if he chooses to select such a position. Having elected this imbalance the network user would be allowed to amend his position only to respond to demand changes; the network user would have an opportunity to amend his gas flows onto the system (or via VTP trades) within a range of say 0 and 120% of the demand change.

  In practical terms, the second approach would enable network users to choose an imbalance at day ahead. If the aggregated effect was sufficiently large then the TSO would take a balancing action to correct the position.

  As demand changes, network users would have the opportunity to amend their gas flows or traded positions between 0 and 120% of their portfolio demand change (and only in the direction to offset the demand change). This should focus liquidity in the periods just after revised information becomes available.

  If the aggregated effects of the network user do not affect acceptable flow patterns, then the TSO will take a balancing action.

  Thus, this transitional step could produce the necessary focus of liquidity to assist a 'kick-start 'of the short-term market. Once experience and confidence develops then the removal of the interim steps can be considered.

Table 8: Sample matrix to illustrate a high level summary of a potential roadmap for a new market

Transition _ Illustrative example only	**Step 1** **Up to I + 1 year**	**Step 2** **Up to I +2 year**	**Step 3** **Up to I + 3 year**	**Step 4** **Up to I + 4 year**
	Establish environment to get flex offered to TSO	Start to increase incentives on network users	Progress incentives to within –day procurement	Network users exposure increased
Balancing platform	Yes	Yes	Yes – plus title actions taken Trading Platform	
Trading platform product availability	None	Title day ahead product	Title day-ahead and within day "bod" products	
Cash-out	Use marginal prices of trades to set cash-out prices – perhaps set prices based on top/bottom 40% of volumes	Some strengthening of cash-out - perhaps set prices based on top/bottom 20% of volumes	Use combination of Trading Platforms and Balancing Platform transactions	
Tolerances	Set at 2% of IDM/DM quantities + NDM Deviation adjustment (D-1 forecast)	Set at 1.5% of IDM/DM quantities + NDM Dev Adj (D-1)	Set at 1.0% of IDM/DM quantities + NDM Dev Adj (D first forecast)	NDM Dev Adj (D final forecast)
Surplus flexibility release	Release flex onto balancing market at high/low prices to stimulate sellers to offer flexible gas	Reduce TSO Balancing service holding by 20% - and to release surplus	TSO to reduce balancing services to 50% (of Step 1 holdings)	TSO to reduce to anticipated BTM requirement level – no need for surplus to be offered
Nominations	Users must nominate a balanced position; opportunity (not obligation) to track demand after forecasts provided	Users can choose day ahead imbalance, option to track demand (or not) for each day	Users can choose day ahead imbalance, option to track demand (or not) for each day	Remove nominations restrictions
Balancing action transparency	TSO to indicate it will act and quantity – to prompt response	TSO to indicate it will act and roughly when	TSO to use Trading Platform where it can (subject to merit order)	TSO to move to anonymous activity
Neutrality	Accept that there will be some costs – inevitable to kick-start the market	Start on unravel cross-subsidies	Progressively achieve better targeting via removal of leakages to neutrality	
TSO incentives	To be proposed by TSOs for NRA consideration			

Question 53 – *Are there any other interim steps that should be considered beyond those envisaged in the table above?*

8. ENTSOG review of progress towards network code implementation

ENTSOG has specific obligations to monitor the implementation of codes in Regulation 715/2009.

Additionally the FGs define that until such time as the Balancing Target Model is implemented throughout Europe, ENTSOG shall regularly review the progress towards its implementation.

No explicit text on ENTSOG's monitoring role has been included in the Balancing Network Code.

Question 54 – *Are there any specific ENTSOG monitoring and reporting activities that should be explicitly captured in the Balancing Network Code. If so, please identify them and their rationale.*

6. General issues

6.1. Level of detail in the Draft Code

ENTSOG aims to formulate a Draft Code which can, if the principles in it are approved by ACER, be submitted to EC to be passed into the comitology process. With this aim in mind, we would welcome stakeholder views on whether the level of detail in the Draft Code is appropriate.

ENTSOG does recognise that the level of detail in the Draft Code does vary. This variance is correlated with the variability of the policy mandate across the range of topics in the FGs. For example:

- For some topics, the FGs establish obligations on parties (e.g. TSOs and NRAs) which will be defined at the level of national regimes. For such topics, the Draft Code simply transposes the FG passages into legal text;
- For some other topics, the FGs require ENTSOG to formulate a detailed mechanism or rules to achieve a policy objective and/or mandate. For such topics, the Draft Code includes precision in the definitions, calculations and/or approval process timelines, including the filling of any logical gaps, to ensure that a 'fit for purpose' set of rules can be established.

***Question 55** – Do you consider that the level of detail in the Draft Code, as it has been tailored according to the topic treated, is appropriate for EU legislation? If not, please explain why with reference to specific topic chapters (articles, paragraphs, etc.).*

***Question 56** – After reviewing and/or replying to the questions in Chapter 5 of this document, do you find that there other material issues that ENTSOG should consider as it develops the Draft Code?*

***Question 57** – Do you find that this supporting document for the public consultation was 'respondent-friendly' in terms of its readability, style, etc.? Please explain how ENTSOG could improve future consultation documents.*

Annex 1 – Summary of consultation questions

Chapter 5. Specific issues (by topic chapter in the draft code)

CHAPTER I. GENERAL PROVISIONS

No questions

CHAPTER II. BALANCING SYSTEM

Question 1 – Do you concur that the implementation of a Virtual Trading Point via the inclusion of the Trade Notification and Allocation rules in the Balancing Network Code will contribute to the delivery of a properly functioning market? If not, please propose an alternative and provide justification.

Question 2 – in the context of the proposed Trade Notification and Allocation rules, does the Draft Code provide sufficient harmonisation within? If not, what would be the preferred basis for any additional harmonisation?

CHAPTER III. CROSS-BORDER COOPERATION

Question 3 - Do you agree that ENTSOG should issue the review of the progress of harmonisation of balancing rules report at the latest two year after the implementation of the network code and then biannually thereafter? If not, please propose an alternative and provide justification to support your proposal (and /or counter Draft Code's approach).

Question 4 – Do you agree with the proposed review process (including the issuing of a report (in the public domain)? If not, please propose an alternative and provide justification to support your proposal (and /or to counter Draft Code's approach).

CHAPTER IV. OPERATIONAL BALANCING

Question 5 – Do you agree that TSOs should, under specific circumstances, be allowed to trade in adjacent markets? If so, please explain under what circumstances.

Question 6 – Do you agree that the use of the expression 'economic and efficient' is a suitable criterion assessing TSO Balancing Actions? If not, please provide an alternative and an associated rationale.

Question 7 – Do you agree with the choices in the Draft Code: (1) to limit standardised products for trading flexible gas to short-term products; and (2) to have only a small number of short-term standardised products? If not, please explain why.

Question 8 – Do you agree that the Balancing Network Code should not prescribe exchange-based trading for the TSO and to leave this to the discretion of the TSO and the TPO? Should the network code provide criteria and factors to consider for the TSO to use an exchange based trading?

Question 9 – Do you agree with the current level of services to be provided by a Trading Platform specified in the Draft Code? For example, the STSPs make no reference to a block size, meaning that this will be agreed on a local basis. If not, please explain where and why additional specification is needed.

Question 10 – Do you agree with the current level specified in the Draft Code on contractual structure and arrangements between the different parties? What changes (if any) would you advocate?

Question 11 – Do you agree with the choices in the Draft Code to put the obligation to (re)nominate on the Originating Party? If not, what would your preferred alternative be and what benefits would this alternative have over the mechanism proposed in the Draft Code?

Question 12 – Do you concur with the sequence of the tools in the merit order and the level of guidance it gives the TSO in choosing the most appropriate tool? If not, which changes, if any, would you advocate and why?

Question 13 – What is your view on: (1) the criteria to be considered by the TSO when procuring Balancing Services; and (2) the gradual reduction of the use of Balancing Services as the liquidity of the wholesale market increases? Please provide a reasoned response.

Question 14 – Do you agree with the proposal that the TSO shall be enabled to submit an incentive mechanism to the NRA for approval? If not, please explain why.

CHAPTER V. NOMINATIONS

Question 15 – Do you consider that the procedures set out in the Draft Code (excluding timing,

which is covered below) for the submission of nominations and re-nominations, and the criteria for their rejection, are reasonable? If no, please present and justify your preferred alternative.

Question 16 – Do you agree with the schedule for initial day-ahead nominations set out in the Draft Code? If not, please give a reasoned alternative schedule.

Question 17 – Do you agree with the schedule for re-nominations set out in the Draft Code? If not, please give a reasoned alternative schedule.

Question 18 – What are your initial views on these specific features on nominations (respectively re-nominations for transition, system integrity and daily-hourly regimes of the network code? Please provide a reasoned response.

CHAPTER VI. DAILY IMBALANCE CHARGES

Question 19 - Do you support the Daily Imbalance Quantity determination proposed in the Draft Code? If not, please indicate your preferred approach and supply further rationale and evidence of the benefits of Daily Imbalance Quantities being derived on information based during the Gas Day?

Question 20 – Do you have alternative views as to whether Locational and/or Temporal Market Products should feed into the derivation of the Weighted Average Price? If so what is your rationale for a different approach and what do you see as the benefits?

Question 21 – Do you agree that day-ahead trades should feed into the determination of the Weighted Average Price, Marginal Buy Price and Marginal Sell Price? If so, then under what circumstances should they be used? Is there merit in allowing local discretion as to whether day-ahead trades influence the setting of the prices?

Question 22 – Do you agree that the source of trades should be left to local discretion? What criteria should apply? Should there be an aspiration that the source of trades should be a single platform and if so why and how should the platform be determined? Please provide a rationale for your preferences.

Question 23 – What should the effect of the small adjustment be: to encourage trading or to be sufficiently large to reflect a value for physical flexibility?

Question 24 – Do you agree with the addition of cross border trade as a criterion to the derivation of the Small Adjustment? Are the criteria sufficient? If not, what else should be added? Please justify any proposals.

CHAPTER VII. WITHIN-DAY OBLIGATIONS

Question 25 – In your view, are the elaborations of the criteria in the Draft Code sufficient? If not, please indicate which ones and how.

Question 26 – Do you believe that additional criteria for assessing WDOs are warranted? If yes, please specify which and why.

Question 27 – Do you find the respective roles of a TSO and relevant NRA(s) appropriate in the approval of any WDOs? If not, please explain why and how you would re-define the roles.

Question 28 – Do you agree that a six-month period is appropriate for a TSO to make a proposal for approval of an existing WDO, including a recommendation document? If not, please propose an alternative and provide justification.

Question 29 – Do you agree that a six-month period is appropriate for the NRA to conduct its assessment and approval process? If not, please propose an alternative and provide justification.

CHAPTER VIII. NEUTRALITY ARRANGEMENTS

Question 30 – In your view, is the scope of the currently proposed neutrality section of the Draft Code appropriate? If not, please explain why.

Question 31 – Do you find appropriate the proposed scope of the transparency elements of neutrality? If not, please explain your reasons why.

Question 32 – Please indicate the level of granularity you would expect in the context of the breakdown of net Balancing Neutrality Charges cash-flows from both a temporal (e.g. daily, monthly, annual) and cost/revenue element split.

Question 33 – Do you agree that there would be potential benefits of attributing Balancing Neutrality Charges to different pots and of recovering them over different classes of network users? If yes, please explain why.

Question 34 – If you support multiple neutrality pots, how would these be defined? How could such different attribution processes be applied in practice?

Question 35 – Is the level of specification in the Draft Code for cash-flow management appropriate? If not, how do you propose it be amended?

Question 36 – An alternative to creating additional costs for invoicing systems and processes is to address neutrality sums via adjustment to transmission charges. Do you agree with such an alternative? If not, please explain why.

CHAPTER IX. INFORMATION PROVISION OBLIGATIONS

Question 37 – Do you agree with the information provision models for offtakes proposed in the Draft Code fulfil the requirements of the FGs? If not, please explain.

Question 38 – Do you agree that prospective implementations of Variant 2 should be approved only after a consultation process? If not, please explain.

Question 39 – Do you support the additional proposal that the cost-benefit analysis (CBA) should also examine the time taken to provide information to Network Users? Are there any other features that would strengthen the CBA process and why? If so, please explain why.

Question 40 – Do you agree that the Balancing Network Code has to provide guidance on timing of information flows? If yes, do you agree with the proposals set out? If you do not agree with the Draft Code proposals what could the alternatives be and what would be the justification?

Question 41 – Do you consider that Transparency Guidelines requirements are sufficient to deal with system information? If not what should be included and what is the justification?

Question 42 – Do you agree that the proposal is in line with input information requirements set out in the FGs?

CHAPTER X. LINEPACK FLEXIBILITY SERVICE

Question 43 – Do the proposed additional criteria that a Linepack Flexibility Service has to meet complement those in the FGs to make a sufficient set of criteria? Or are additional criteria required? Please provide a reasoned response.

CHAPTER XI. IMPLEMENTATION, INTERIM MEASURES AND ENTRY INTO FORCE

Question 44 – How should the short-term balancing market be defined? What account of temporal and physical flow considerations needs to be made? What measures should be used to assess liquidity in the short-term balancing markets?

Question 45 – What other measures might be contemplated to enable wider access to short term gas flexibility? Are any of these approaches appropriate for inclusion in the Balancing Network Code?

Question 46 – In your view, what would justify including LNG in the Balancing Zone in "small markets" and in short term transitional arrangements? Do you see any conflict with these reasons and the BTM to be established by the eventual Balancing Network Code?

Question 47 – Do you agree that the tolerance used should be a price based tolerance? If not please explain your rationale and provide your preferred approach.

Question 48 – In your view, should the reduced exposure involve the application of an average price? If not, please explain your rationale and provide your preferred approach.

Question 49 – Do you support the Draft Code including provisions for the accuracy of forecast information provision to ensure timely phase-out of tolerances? If yes, explain how this can be best established.

Question 50 –Does the Draft Code provide an appropriate mitigation of risk involved in servicing NDM demand? If not, please indicate an alternative approach and its rationale.

Question 51 – Do you agree that the Draft Code provides an adequate basis to support the release of surplus TSO flexibility as a stimulus to the market? If not, please explain why.

Question 52 – Do you agree that there is merit in including a reference to Balancing Platform trades in the interim imbalance cash-out price determination part, as suggested in the Draft Code? If yes, how should the approach be formulated and what merits would it have?

Question 53 – Are there any other interim steps that should be considered beyond those envisaged in the table above?

Question 54 – Are there any specific ENTSOG monitoring and reporting activities that should be explicitly captured in the Balancing Network Code. If so, please identify them and their rationale.

Chapter 6. General issues

Question 55 – Do you consider that the level of detail in the Draft Code, as it has been tailored according to the topic treated, is appropriate for EU legislation? If not, please explain why with reference to specific topic chapters (articles, paragraphs, etc.).

Question 56 – After reviewing and/or replying to the questions in Chapter 5 of this document, do you find that there other material issues that ENTSOG should consider as it develops the Draft Code?

Question 57 – Do you find that this supporting document for the public consultation was 'respondent-friendly' in terms of its readability, style, etc.? Please explain how ENTSOG could improve future consultation documents.

Annex 2 – External stakeholders

In November 2011,[21] organisations and companies expressed their interest in participating in the BAL NC development process. Please find below a working list of stakeholders based on those expressions of interest and on actual SJWS participation.

Prime movers

Alliander on behalf of CEDEC and eurogas
E.ON on behalf of EFET
Florence School of Regulation, EUI
GDF Suez
ExxonMobil and Statoil, on behalf of OGP Europe
RWE Supply & Trading

Active SJWS Participants

Alliander
APX-ENDEX
BELPEX
Bord Gáis Energy
BP Gas Marketing
Betriebswirtschaftlich-Technische Unternehmensberatung für Energieversorger GmbH (BTU EVU)
Bundesverband Neuer Energieanbieter (BNE)
CEDEC
CEFIC
Centrica Plc
E.ON Energy Trading
E.ON Ruhrgas
EconGas
EDF
EDF Energy
EDF Luminus
EDF Trading
Edison SpA
EDP Gás
EED bvba
EnBW Trading
Energie-Nederland
Energy Experts Intl
EnergyView bv
Enexis
eni
ESB Energy International

[21] See ENTSOG, "Conclusions from the Public Consultation on the Project Plan for the Balancing Network Code," (Ref. BAL138-11), 8 December 2011.

Eurelectric
eurogas
Europex
EuRoPol Gaz
ExxonMobil
Fachverband Gas Wärme (FGW)
French Institute of International Relations (ifri)
Gas Storage Netherlands
GasTerra B.V.
Gazprom Marketing & Trading
GDF SUEZ
GDF SUEZ Infrastructure Branch
GEODE
GIE
GN DISTRIBUCION SDG S.A
GrDF
HMN Naturgas I/S
HUPX Ltd./EuroPEX
Iberdrola, S.A.
IFIEC
KEMA Consulting GmbH
Naturagas Energia Distribucion
OGP GAZ-SYSTEM
Pan Energy Markets
PGNIG SA
PLINOVODI d.o.o.
Powernext
PwC
REF - Energy
Reganosa
RWE Supply & Trading GmbH
RWE/Essent
SEDIGAS
South Stream Transport AG
Statkraft Markets GmbH
Statoil ASA
Swedish Energy markets inspectorate
Thüga AG
VCI
VERBUND Trading AG
VIK Germany
VKU
WIEN ENERGIE GASNETZ GMBH