



Gas Balancing

An ERGEG Conclusions Paper

E06-GFG-17-03
20 April 2006

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Executive Summary

In July 2005, ERGEG published the “Gas Balancing paper” for public consultation. The consultation paper set out the key issues associated with gas balancing and requested comments on proposed changes to the CEER high level gas balancing principles. The July 2005 paper also proposed, based on the high level principles, the development of more detailed Guidelines for Good Practice for Gas Balancing (GGPGB).

16 responses were received to the July 2005 consultation paper.

This document summarises, and sets ERGEG’s view on, the key issues raised by respondents to the July 2005 consultation paper. It includes a final version of the high level gas balancing principles.

In addition, an initial draft of the detailed **gas balancing guidelines** (reference number E06-GFG-17-04) has been produced, for consultation alongside this document, based on the finalised gas balancing principles (Annex 2 of this document). Responses to the Gas Balancing Guidelines (GGPGB) public consultation document (which were published on 25 April 2006) are requested by 20 June 2006 and should be sent to GGPGB@ergeg.org.

A final version of the GGPGB will be published following ERGEG’s consideration of responses to the draft version.

Chapter 1: Introduction

1 Introduction

Gas balancing has a crucial role to play in underpinning the development of a competitive market in gas. If balancing regimes are not designed appropriately and/or there is a lack of access to flexibility tools and services then real barriers to entry to a market can be created. There may also be consequences for security of supply. The Gas Regulation recognises this and requires that there are “...non-discriminatory and transparent balancing systems for gas...”¹

Against this background, ERGEG published a consultation paper on gas balancing issues (“Gas Balancing – An ERGEG Discussion Paper for Public Consultation”) in July 2005. The paper set out the key issues associated with gas balancing and proposed changes to the existing CEER high level gas balancing principles. The gas balancing principles were originally designed to be used by National Regulatory Authorities (NRAs) and Transportation System Operators (TSOs) to design gas balancing regimes. The July 2005 paper also proposed the development of more detailed guidelines for good practice for gas balancing (GGPGB) based on the high level principles with a view to apply to not only the relevant national regulatory authority (and/or the authority to which the Member State has delegated the responsibility for designing and/or operating the balancing rules) but also Transportation System Operators (TSOs) and network users. In case Member States have established one or more entities or bodies for the purpose of carrying out one or more functions typically attributed to a TSO with regards to balancing the GGPGB shall likewise apply to these entities or bodies.

The importance of balancing issues was also highlighted by DG Competition in the preliminary report on the energy sector review. This showed that the way in which balancing regimes are designed can have a negative impact on the development of competition.

¹ Regulation (EC) No 1775/2005 of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks, OJ L 289/1 (3.11.2005).

Issues associated with gas balancing may also arise as part of ERGEG's recently launched gas regional initiative² which is made up of a number of Regional Energy Market projects (REMs). The gas REMs are focusing on how barriers to the development of trading at and between gas hubs and regional markets more widely can be overcome.

16 responses were received to the July 2005 consultation paper (see Annex 1 for a list of respondents). Where the responses are not marked as confidential they are available on the ERGEG website.³

2 Purpose of this document

This document summarises, and sets ERGEG's view on, the key issues raised by respondents to the July 2005 consultation paper. It includes a **final version** of the high level gas balancing principles (Annex 2).

The high level gas balancing principles have been used as the basis for preparing draft Guidelines for Good Practice for Gas Balancing (GGPGB). The GGPGB has been **published (25 April 2006) for consultation** alongside this conclusions document. The GGPGB also includes a template which identifies the information that should be provided by TSOs to help ensure that gas balancing regimes work efficiently.

A **final version** of the GGPGB will be published once ERGEG has considered responses to the draft version. The views of respondents are particularly welcomed on the GGPGB and in particular on the information that should be provided to market participants.

The document is structured as follows:

- **Chapter 2 - Summary of responses on key Issues and ERGEG's view**
- **Annex 1 - List of respondents to the July 2005 consultation paper**
- **Annex 2 – Final high level gas balancing principles**

² See "A roadmap for a competitive single gas market in Europe – An ERGEG conclusions document" (March 2006) and the ERGEG website (www.erggeg.org) for information on the Gas Regional Initiative which was launched on 25 April 2006.

³ www.erggeg.org

3 Responding to this Gas Balancing Guidelines public consultation

EREGG invites comments on the draft Guidelines for Good Practice for Gas Balancing (GGPGB) (document reference number - E06-GFG-17-04) which were published for consultation on 25 April 2006 (see www.erggeg.org).

Responses should be received by **20th June 2006** and sent by e-mail to: GGPGB@erggeg.org.

Any questions on the public consultation document should, in the first instance, be directed to:

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Unless marked as confidential, all responses will be published by placing them on the ERGEG website. If there is anything confidential it should be included in a separate annex to respondents' core response document.

Chapter 2: Summary of responses and ERGEG's view

The July 2005 consultation paper set out 9 key questions and requested comments on the proposed changes to the CEER high level gas balancing principles.

This section sets out a summary of the key issues raised by respondents and ERGEG's view.

1 Balancing period

The July 2005 consultation paper explained that shippers have argued that in some instances the balancing period is too short placing strain on information systems and increasing risk to market participants.

The paper also pointed out that the choice of the appropriate balancing period needs to be based on an assessment of a number of objective criteria and that there was not one appropriate answer.

View of respondents

The majority of respondents argued that hourly balancing can create significant barriers to entry to the market for a number of reasons including that:

- traded markets are daily based partly because upstream production contracts are daily based, and as such changing production flows to a higher frequency could impact on efficiency and safety and potentially increase costs;
- many new entrants would not have the capacity to deal with the frequency of data or the higher risk of imbalance (and cost);
- the arrangements tend to be overly complex and lead to low liquidity;
- there is greater exposure to cash-out penalties;
- there is an inability to access flexibility tools and services to match the balancing period and efficiently manage risk exposure;

- it requires costly changes to metering, collection of data and provision of information to the market and hourly nomination; and
- hourly balancing in a country bordering another one that has adopted a daily balancing regime creates distortions on cross border flows and hampers further European harmonisation of gas markets.

GIE indicated that an hourly balancing regime applied on a transparent and non-discriminatory basis is not a barrier to competition. It suggested that it can lead to lower costs for shippers as there are clearer responsibilities and therefore less cross-subsidy between shippers. It did recognise that hourly balancing has to be supported by an adequate operational/commercial framework and metering arrangements.

EREGEG's view

The July 2005 consultation paper indicated that there was no single answer for the appropriate balancing period. Respondents have indicated a number of reasons why hourly balancing can create barriers to entry. ERGEG considers that daily balancing is preferable unless there are technical/operational reasons that mean that hourly balancing is necessary to ensure that system can be balanced and/or for safety/security reasons.

Decisions on the appropriate balancing period need to be objectively justified in a transparent way – and market participants must have an opportunity to contribute to the decision making process. It is also important that where hourly balancing is used that market participants have access to appropriate information and flexibility tools (including “proxy” tools such as trading of imbalance charges and pooling of imbalance positions) so that they can **manage** their imbalance positions (and therefore risk) efficiently.

Where it is not possible to provide appropriate information and access to flexibility, it is then important to consider whether the risks that market participants are exposed to should be **mitigated in some way, to ensure that barriers to entry are not created** (for example through the use of tolerance bands or by limiting the size of the imbalance charge) – i.e. there is a need to consider the trade-off between availability of information and risk management tools and the balancing period. Where possible however **incentive based** approaches that allow market

participants to **manage** their own risk efficiently are preferable to solutions that **mitigate** risk – as this will help ensure that overall system costs are minimised.

Most regimes are based on balancing periods characterised by a settlement procedure at the end of the balancing period (i.e. so that imbalance positions are set back to zero for the beginning of the next balancing period). It may be the case however that there is no settlement procedure (because the network user has not exceeded its tolerance level) to define the end of the balancing period. In these circumstances the balancing period would mean:

- each period for which a penalty is due, as long as the cumulated imbalance is in excess of the tolerance level; and/or
- each period for which an independent imbalance threshold is defined.

2 Provision of linepack as an unbundled service

The July 2005 consultation paper suggested that one way of improving access to flexibility tools would be to require TSOs to make linepack available to market participants on a non-discriminatory basis (and also to facilitate the secondary trading of linepack).

View of respondents

There was general support from respondents for linepack to be provided by TSOs but only as part of a **bundled service** (e.g. reflected in tolerance levels) rather than as a separate/unbundled service. Key issues raised by respondents were:

- devising a workable scheme for the provision of linepack would be complex and costly;
- it is more beneficial to reserve linepack management to the TSO (especially in a daily balancing regime) to minimise overall residual imbalance; and
- system flexibility can be made available to shippers simply and more effectively through the use of imbalance tolerances, storage or the ability to trade imbalance positions on an ex-post basis.

A small number of respondents suggested that provision of linepack as an unbundled service would be beneficial to the market.

EREGG's view

The Gas Directive requires that access to linepack be provided on either a negotiated or regulated basis where it is technically or economically necessary for providing efficient access to the system (Article 19). It is important that the provision of any linepack does not undermine the ability of the TSO to balance the system (i.e. it should be “surplus” linepack to that required by the TSO to balance the system) and that it is not too costly and/or complex to introduce/monitor – where legitimate concerns have been raised by respondents.

Market participants should have access to appropriate flexibility tools (including the associated information) to manage their risks efficiently. The provision of linepack on an unbundled basis is one way of providing flexibility to market participants – there are others. Where it is possible to provide surplus linepack on an unbundled basis, without undue costs/complexity and undermining the ability of TSOs to balance the system, then this should be considered as an additional flexibility tool that can be used by market participants to manage their risks efficiently. Any decisions on the provision of linepack on an unbundled basis should be objectively justified against these factors. As markets develop over time, the ability of TSOs to provide linepack on an unbundled basis should improve (the associated costs and complexity would be expected to fall) and as such this issue will be reviewed as part of ERGEG's future work on gas balancing.

3 Pooling and trading of imbalance positions and the use of tolerance levels

The July 2005 consultation paper explained that another way of allowing market participants to manage their risks efficiently would be to allow them to trade or pool their imbalance positions (mechanisms that can be seen as “proxy” flexibility tools). It also suggested that where risks cannot be managed it may be appropriate to mitigate them in some way – for example through the use of tolerance levels.

Views of respondents

There was significant support from shippers for the proposal to allow ex-post trading of imbalance positions. Key issues raised were that:

- it would improve efficiency as the TSO would not have to process as many imbalance revenues;
- while imbalance markets are illiquid and shippers do not receive timely information that allows them to take prompt action, then shippers should be allowed to trade their imbalance positions ex-post;
- it is important to allow shippers to trade their imbalance ex-post as only aggregate imbalances lead to costs being incurred by the TSO to balance the system;
- this option is of value to new entrants and small operators who are more vulnerable to imbalances (given that they typically have smaller portfolios); and
- trading ex-post helps to ensure that the overall imbalance charges faced by shippers reflect the true economic cost of balancing to the TSO.

One respondent did not support ex-post trading. It argued that it could create a disincentive to shippers to balance their positions as they would rely on trading out their positions ex-post with other market participants.

ERGEG's view

A balancing regime needs to provide an appropriate balance of risk and incentive (coupled with availability of information) for market participants to manage their imbalance positions – otherwise barriers to entry and competition can be created. In a “perfect world” market participants would have access to all of the information and flexibility tools they need to manage their positions efficiently. Where direct access to flexibility tools (and/or a well functioning/liquid within day market) is not sufficient to allow market participants to manage their positions efficiently then other mechanisms should be introduced. These can include ex-ante-trading, pooling of imbalance positions and ex-post trading. These can be seen as **proxy flexibility tools**. All of these mechanisms allow market participants to take action to manage their own imbalance positions which can lead to more efficient balancing regimes and system use. It is unlikely that a shipper would decide not to take action to balance its position ex-ante – as this could expose it to

significant risk (and imbalance charges) unless a counterparty could be found to trade away its position ex post.

The use of tolerance levels aim to mitigate the level of risk that market participants are exposed to in balancing regimes but they can also weaken the incentive on shippers to balance within the specified limits. This weakening of incentives can lead to higher overall system costs. Therefore tolerance levels should only be used where direct access to flexibility tools or proxy tools (or the availability of information) is such that a degree of risk mitigation is necessary to ensure that barriers to entry and competition are not created. This may particularly be the case in markets that are less well developed. Over time, as markets develop and access to information, and flexibility tools (both direct and proxy) improve it should be possible to **reduce (and minimise) the size of tolerance levels.**

4 Cross border trade and harmonisation of neighbouring balancing regimes

The July 2005 consultation paper highlighted that in an increasingly integrated, and competitive European gas market, interactions between gas balancing regimes in different countries are likely to become more important. The paper also highlighted that there are some significant differences in the design of balancing regimes across the EU often between neighbouring TSOs. The paper requested views on whether such differences distort trade or incentives to shippers or have a negative impact on the safety/security of the transportation systems.

Views of respondents

Many respondents suggested that differences in cross border balancing regimes do have an impact on cross-border trade and competition – although it was recognised that this does not necessarily mean that all balancing regimes must be the same. Key issues raised included that:

- the use of similar balancing regimes between neighbouring countries is likely to improve the availability and efficiency of cross border flows;
- balancing regimes should support interoperability but do not necessarily have to be the same;

- whilst convergence criteria could be developed for balancing regimes it is unlikely to lead to completely harmonised balancing regimes;
- many cross-border issues relate to capacity availability and renomination rights and as such any focus of harmonisation should be in these areas;
- the use of OBA's that focus on the interaction between gas balancing regimes in neighbouring countries could help mitigate risk; and
- closer cooperation between regulators, TSOs and system users is important;
- there are benefits in neighbouring regimes having similar characteristics such as balancing periods and cash-out mechanisms.

There was support for the development of balancing zones that could cover more than one TSOs' network although it was recognised that at this stage of development in the competitive single market this may not be appropriate or be technically achievable or deliverable under the current legislative framework.

ERGEG's view

It is clear that interactions between balancing regimes can impact on the flow of cross-border trade and the development of competition. These interactions are likely to increase in importance as the single market develops over time. The development of an internal market in gas – and regional markets as an interim step – requires consideration of trading areas that are not necessarily constrained to one TSO's network. This is recognised in the Gas Regulation which will come into effect from June 2006 and requires that...“Member States shall ensure that TSOs endeavour to harmonise balancing regimes and streamline structures and levels of balancing charges in order to facilitate gas trade”.

One way of facilitating this process would be for TSOs to investigate further the impact of differences in gas balancing regimes and to develop Operational Balancing Agreements (OBAs) and Interoperability Agreements (IAs) between neighbouring (interconnected) TSOs. These OBAs could include a number of things including the way in which the balancing regimes interact; identify key differences and the reason why they exist; the impact of any differences on trade and the incentives provided to shippers and TSOs; and how any differences in arrangements for dealing with safety and security impact on trade, incentives and costs. The OBAs could also identify areas for harmonisation and a timetable for making changes. To ensure transparency,

any OBAs should be open to consultation with all market participants and fully involve the relevant NRA. ERGEG notes that GIE has initiated work on convergence criteria for balancing regimes and also recognises the work of EASEE-GAS in this regard.

ERGEG has also announced the creation of regional initiatives to look at improving the level of market integration and competition across the EU.⁴ If differences between balancing regimes are impacting on the development of competitive markets then it could be investigated further as part of the work on regional initiatives.

5 Graduated incentives for imbalance

The July 2005 consultation paper sought views on whether the incentives to balance become stronger the further away a shipper is from being in balance.

Views of respondents

Although some respondents recognised that greater imbalances could carry higher penalties there was not much support for this type of incentive. Respondents argued that generally there are other mechanisms to incentivise shippers. One respondent also argued that a graduated incentive may have a disproportionate impact on smaller market participants and therefore may create barriers to entry.

ERGEG's view

It is important that there is an appropriate balance of risk that provides incentives to balance without creating undue barriers to entry. The introduction of graduated incentives may change this balance and therefore ERGEG does not intend to recommend the introduction such arrangements at this stage.

⁴ Insert reference to gas and electricity roadmap papers.

6 Information required by the market

The July 2005 consultation paper indicated that market participants (including regulators) feel that there are some problems regarding information flows within balancing regimes. Issues have been raised both about the quality of the information and delays in the final allocation process. Problems of information flow can create unnecessary additional risks that market participants have to manage. If these risks become too large (or unmanageable without incurring significant cost) players may choose not to participate in the market. The problems of information flow can be exacerbated within hourly balancing regimes which tend to require more frequent information. The paper sought views on what information should be provided to help ensure that gas balancing regimes operate efficiently.

Views of respondents

Respondents generally agreed that information transparency was very important in any balancing regime. A significant number suggested that the best way of providing information in a non-discriminatory way would be on the internet. Some respondents pointed out the frequency of information must allow shippers to take actions to change their imbalance positions – some suggested that information should be provided on an hourly basis particularly within regimes that have an hourly balancing period. Some specific information was identified that should be provided including:

- historical supply and demand data;
- inlet and outlet data to each shipper
- maintenance schedules;
- extraordinary events; and
- temperature and demand forecast information.

EREGEG's view

Transparency in information provision is crucial to the development of effective competition and more efficient markets. It is also important that relevant information is provided to all parties in a non-discriminatory basis and arrangements should be put in place to ensure that this is the case.

It is also important to recognise the link between the availability of information and the level of risk to which market participants are exposed. In balancing regimes where the availability of information is such that shippers find it difficult to take balancing actions, consideration should be given to looking at ways of allowing them to manage their own risk better (e.g. through the use of pooling or trading of imbalance positions) or to mitigate it in some way (e.g. through the use of tolerances).

To improve the level of transparency, ERGEG intends to set out in the GGPGGB requirements relating to the provision of information provision. This will include an information template.

7 Transit/Transportation

The July 2005 consultation paper explained that different balancing rules are sometimes applied to transit and transportation flows. It has been suggested that there is a lack of transparency regarding the interaction of the transit and transportation balancing rules and that this uncertainty increases risk and potentially creates a barrier to entry to the market. Views were requested on the interaction between transportation and transit balancing regimes.

Views of respondents

One respondent argued that the different treatment of transit and transportation flows contradicts the principle of non-discrimination. In particular the Directive 2003/55/EC and the Regulation on access to gas transmission networks do not treat such networks separately. Another respondent suggested that as transit and transport serve different purposes different balancing rules may be appropriate. One respondent argued that the level of harmonisation possible will depend on a number of factors including the degree of interconnection and interchange between the relevant transit and transportation systems.

EREGEG's view

The Gas Regulation which will come into effect from June 2006 does not make a distinction between transportation and transit flows of gas. Therefore it is not appropriate to treat them separately for the purposes of the high level gas balancing principles or the GGPBP. As with gas balancing regimes in neighbouring countries this does not mean that everything should be harmonised, but rather that any differences are justified on an objective basis, and that any costs that arise from balancing the different systems are allocated appropriately. Particular attention should be given to the physical characteristics on the respective network. The balancing rules applied should also be non-discriminatory and fair and not distort trade.

ANNEX 1: List of respondents

IFIEC

Plurigas

CEDEC

OGP

Merrill Lynch

Shell

Exxon Mobil

ENEL

Centrica

BP Gas, Power & Renewables

EFET

EDF

GEODE

GTE

Eurogas

Total

ANNEX 2: Final high level gas balancing principles

This Annex sets out the final high level gas balancing principles that will be used as the basis for the GGPGB. These principles reflect the discussion in Chapter 2. Only additional changes to the principles from those published in July are set out and explained here.

Principle 1 (no change from version published in July)

Balancing responsibilities

The primary responsibility of network users is to balance their own inputs and offtakes over the relevant period according to the rules and incentives of the respective balancing regime. The TSO retains the overall responsibility for the economic and efficient operation of its system and therefore should retain a residual role to maintain physical balance to ensure the efficient and safe operation of the system.

Principle 2 (no change from version published in July)

General requirements for balancing rules

Balancing rules shall be designed in a fair, non-discriminatory and transparent manner and shall be based on objective criteria. The development of balancing rules and changes thereof should be subject to appropriate consultation with market participants and decisions should be supported by objective criteria and analysis.

Where balancing rules (including imbalance charges) are administered by the TSO they should be equally applied to its own commercial operations and affiliates, where part of a vertically integrated company, as to third parties. This includes ensuring that no information concerning the operation of the balancing regime are provided to an affiliate company of the TSO in advance of being provided to all market participants. The arrangements to meet this requirement should be made publicly available. Balancing rules should be designed to minimise the residual physical balancing role of the TSO subject to the safe and economic operation of the network and the incentives, information and flexibility and tools provided to shippers to balance their individual portfolio. They should also be designed to facilitate effective competition and market participation between shippers and avoid discrimination particularly in creating undue barriers of entry to new entrants or smaller players.⁵

⁵ It will be necessary to consider how this requirement should be reflected in the design of different aspects of gas balancing rules.

Principle 3 (version published in July)**Frequency of balance**

The choice of an appropriate balancing period clearly needs based on a balanced assessment of a number of objective criteria. These should include:

- ◆ the operational capabilities of the transportation system to balance the system;
- ◆ the flexibility and tools to balance that market participants have over the relevant period, including the availability of linepack services;
- ◆ the interaction of balancing period with effective commercial incentives to balance, in particular interactions of shorter balancing periods in electricity markets with potentially longer periods in gas;
- ◆ the interaction with balancing periods in connected gas systems to ensure that no undue barriers to cross border trade are created;
- ◆ availability and accuracy of the information over the relevant period that is made available to shippers to take balancing actions;
- ◆ the costs imposed by particular balancing regimes, for example the IT costs of providing more regular information flows over shorter balancing periods and the transaction costs incurred by shippers from potentially taking more frequent balancing actions; and
- ◆ nomination procedures complementary to the frequency of balance.

It is important that shippers are not exposed to undue risks that they cannot manage effectively and/or without incurring inefficient costs that could create a potential barrier to entry to the market.

Suggested change

Daily balancing is preferable unless there are technical/operational reasons that mean that hourly balancing is necessary to ensure that system can be balanced and/or for safety/security reasons.

The choice of an appropriate balancing period clearly needs based on a balanced assessment of a number of objective criteria. These should include:

- ◆ the operational capabilities of the transportation system to balance the system;
- ◆ the flexibility and tools to balance that market participants have over the relevant period, including the availability of linepack services;
- ◆ the interaction of balancing period with effective commercial incentives to balance, in particular interactions of shorter balancing periods in electricity markets with potentially longer periods in gas;
- ◆ the interaction with balancing periods in connected gas systems to ensure that no undue barriers to cross border trade are created;
- ◆ availability and accuracy of the information over the relevant period that is made available to shippers to take balancing actions;

- ◆ the costs imposed by particular balancing regimes, for example the IT costs of providing more regular information flows over shorter balancing periods and the transaction costs incurred by shippers from potentially taking more frequent balancing actions; and
- ◆ nomination procedures complementary to the frequency of balance.

It is important that shippers are not exposed to undue risks that they cannot manage effectively and/or without incurring inefficient costs that could create a potential barrier to entry to the market.

Where hourly balancing is used market participants have access to appropriate information and flexibility tools so that they can manage their imbalance positions (and therefore risk) efficiently.

Where it is not possible to provide appropriate information and access to flexibility, it is important to consider whether the risks that market participants are exposed to should be mitigated in some way, to ensure that barriers to entry are not created (for example through the use of tolerance bands or by limiting the size of the imbalance charge). Where possible incentive based approaches that allow market participants to manage their own risk efficiently are preferable to solutions that mitigate risk.

Principle 4a (no change from version published in July)

Balancing Costs and incentives for the TSO

TSOs should have commercial incentives to ensure that the costs of taking residual balancing actions and associated operational costs that the TSO incurs are efficient. Unless a TSO is not permitted to accept bids and offers for balancing gas as a means to balance the system it should procure flexibility (including gas) in a transparent and non-discriminatory manner using market based mechanisms where possible. The regime needs to ensure that the TSO remains broadly cost-neutral in relation to the balancing actions it takes so that any revenues or costs provide correct incentives to the TSO in relation to the timing and size of balancing actions to ensure a safe, reliable and economic system.

Where a TSO is not permitted to accept bids and offers for balancing gas as a means to balance the system the TSO should be able to contract for gas in other ways for example accessing gas from storage or with contracts with shippers. It is important that these costs are efficient and that they are charged back to shippers on a non-discriminatory basis. Information on the costs incurred by the TSO shall be made publicly available where this does not have a negative impact on the commercial position of the relevant market participants.

Principle 4b (no change from version published in July)**Charges for imbalances**

Imbalance charges should not result in a distortion of competition and/or trading activities in wholesale gas and storage and flexibility markets. Imbalance charges shall be cost-reflective to the extent possible, whilst providing appropriate incentives on network users to balance their input and off-take of gas. They shall avoid cross-subsidisation between network users and shall not hamper the entry of new market entrants. These incentives should be such that, *in aggregate*, the participants of the system face strong incentives to physically balance the system in an efficient way. They should also be fair and non-discriminatory and based on objective criteria and not hamper entry of new market participants. The method for calculating imbalance charges shall also be made public by the competent authority or the TSO as appropriate.

There should also be accurate targeting of system balancing and operation costs to those participants that caused them to be incurred. Any costs that cannot be targeted should be allocated back to shippers in a non-discriminatory manner.

Principle 4c (version published in July)**Trading of Imbalance positions**

Network users should be provided with the ability to trade imbalance positions, with each other, for instance as if the two (or more) shippers in questions were acting in aggregate (i.e. in a similar manner to the way a single shipper is able to reschedule its portfolio of flows). Ex-post trading of imbalances should in principle be permitted, at least as interim measure until the development of liquid within day markets, provided it creates an appropriate balance between the necessary flexibility for shippers to avoid exposure imbalance penalties while providing effective incentives, which in aggregate, might be expected to minimise the incidence of residual balancing actions. The TSO should have systems in place to facilitate the trading of imbalance positions where it is allowed.

It may also be appropriate to allow pooling of imbalance positions across shippers as an additional service.

Suggested change

Where direct access to flexibility tools/and or information is not sufficient (or there is an absence of a well functioning/liquid within day market) to allow market participants to manage their positions efficiently then other mechanisms should be introduced. This includes ex-ante-trading, pooling of imbalance positions and ex-post trading. The TSO should have systems in place to facilitate the trading/pooling of imbalance positions where these services are provided.

Principle 5 (version published in July)**Tolerance services**

Tolerance services in particular for less mature or less liquid markets are a useful tool to facilitate competition and a pragmatic means to handle some of the uncertainties surrounding balancing. Where offered, tolerance levels should be designed in a way which reflects the actual technical capabilities of the transmission system for example taking into account daily effective temperature. However, particular account should be taken of the extent to which tolerances may be utilised by shippers to offer “balancing gas” or cause balancing costs to be incurred by the TSO that are subsequently socialised. Therefore, they should be minimised as far as possible as long as this is consistent with the technical capabilities of the transmission system and that it does not impose undue levels of risk on shippers. In particular, careful consideration is needed in sufficiently liquid and developed markets of the necessity of tolerance where this leads to a significant socialisation of imbalance costs. In any case, the secondary trading of tolerances should be permitted and should be facilitated by TSOs by the introduction of appropriate systems.

In the case of non-market based balancing systems, tolerance levels shall be designed in a way that either reflects seasonality or results in a tolerance level higher than that resulting from seasonality, and that reflects the actual technical capabilities of the transmission system. Tolerance levels shall reflect genuine system needs taking into account the resources available to the transmission system operator.

Where the balancing period is shorter than one day, tolerance levels can be a particularly useful tool for mitigating the balancing requirements on system users.

Suggested change

The use of tolerance levels aim to mitigate the level of risk that market participants are exposed to in balancing regimes but they can also weaken the incentive on shippers to balance within the specified limits. This weakening of incentives can lead to higher overall system costs. Therefore tolerance levels should only be used where direct access to flexibility tools/or information (or proxy flexibility tools) is such that a degree of risk mitigation is necessary to ensure that barriers to entry and competition are not created. This may particularly be the case in markets that are less well developed. Over time, as markets develop and access to information, and flexibility tools (both direct and proxy) improve it should be possible to reduce (and minimise) the size of tolerance levels.

Where offered, tolerance levels should be designed in a way which reflects the actual technical capabilities of the transmission system for example taking into account daily effective temperature. However, particular account should be taken of the extent to which tolerances may be utilised by shippers to offer “balancing gas” or cause balancing costs to be incurred by the TSO that are subsequently socialised. In particular, careful consideration is needed in sufficiently liquid and developed markets of the necessity of tolerance where this leads to a significant socialisation of imbalance costs. In any case, the secondary trading of tolerances should be permitted and should be facilitated by TSOs by the introduction of appropriate systems.

In the case of non-market based balancing systems, tolerance levels shall be designed in a way that either reflects seasonality or results in a tolerance level higher than that resulting from seasonality, and that reflects the actual technical capabilities of the transmission system. Tolerance levels shall reflect genuine system needs taking into account the resources available to the transmission system operator.

Where the balancing period is shorter than one day, tolerance levels can be a particularly useful tool for mitigating the balancing requirements on system users.

Principle 6 (no change from version published in July)

In order to enable network users to take timely corrective action, TSOs shall provide sufficient, well-timed and reliable on-line based information on the balancing status of network users. The level of information provided shall reflect the level of information available to the TSO. Where they exist, charges for the provision of such information shall be approved by the relevant authorities and made public by the TSO.

Information should be provided to all participants on a non-discriminatory basis and in a format which is meaningful, quantitatively clear and easily accessible.

Where information flows are a problem TSOs shall use provisional allocations in the calculation of imbalance charges to reduce the risk for shippers. The time period within which charges are confirmed and the method for calculating provisional allocations should be approved by the competent authority after proper consultation with the TSO and relevant shippers as should any subsequent changes to charges once definitive allocations are available.

Principle 7 (version published in July)

Harmonisation of balancing rules

TSOs should ensure compatibility of balancing regimes (tolerances, imbalance charges etc) in order to facilitate gas trade across borders of different TSO systems. European TSOs shall endeavour to harmonise balancing regimes and streamline structures and levels of balancing charges in order to facilitate trade. Where it is justified that balancing regimes (tolerances, imbalance charges, balancing periods etc) remain different between interconnected networks, standardised agreements and procedures between TSOs should be put in place in order to facilitate gas trade. This refers especially to the implementation of Operational Balancing Agreements (OBAs) between neighbouring TSOs ensuring simplification for shippers through appropriately harmonised balancing rules. Such arrangements shall be published and notified to the relevant regulatory authority.

Suggested change

TSOs should ensure compatibility of balancing regimes (tolerances, imbalance charges etc) in order to facilitate gas trade across borders of different TSO systems. European TSOs shall endeavour to harmonise balancing regimes and streamline structures and levels of balancing charges in order to facilitate trade. Where it is justified that balancing regimes (tolerances, imbalance charges, balancing periods etc) remain different between interconnected networks, “standardised agreements” and procedures between TSOs should be put in place in order to facilitate gas trade.

These agreements could include a number of things including the way in which the balancing regimes interact; identify key differences and the reason why they exist; the impact of any differences on trade and the incentives provided to shippers and TSOs; and how any differences in arrangements for dealing with safety and security impact on trade, incentives and costs. They could also identify areas for harmonisation and a timetable for making changes. To ensure transparency, any agreements should be open to consultation with all market participants and fully involve the relevant NRA.

New Principle 8 (version published in July)**Provision of flexibility**

Flexibility should be made available to shippers on a non-discriminatory basis reflecting the underlying technical characteristics of the transmission system. In particular, (where technically available) TSOs should seek, wherever appropriate, to maximize the availability of linepack not needed for system security to all shippers on a non-discriminatory basis in order to help ensure the efficient use of the available flexibility in the system. Where linepack is not sufficient to meet the balancing requirements of system users the TSO shall acquire the additional tools through investments or contractually in order to meet market demand on a non-discriminatory basis.

Suggested change

A balancing regime needs to provide an appropriate balance of risk and incentive for market participants to manage their imbalance positions – otherwise barriers to entry and competition can be created. Flexibility services and tools should be made available to shippers on a non-discriminatory basis reflecting the underlying technical characteristics of the transmission system.

Market participants should have access to appropriate flexibility tools (including the associated information) to manage their risks efficiently. The provision of linepack on an unbundled basis is one way of providing flexibility to market participants – there are others. Where it is possible to provide surplus linepack on an unbundled basis, without undue costs/complexity and undermining the ability of TSOs to balance the system, then this should be considered as an additional flexibility tool that can be used by market participants to manage their risks efficiently. Any decisions on the provision of linepack on an unbundled basis should be objectively justified against these factors.