Response to balancing framework guidelines consultation

Introduction

ENTSOG welcomes the current consultation on the framework guidelines as a sound basis for further development of a European network code on balancing. The framework guidelines clearly aim at facilitating the development of liquid short-term wholesale markets which ENTSOG supports. At the same time the framework guidelines allow TSOs the ability to carry out efficient balancing actions through transacting in the wholesale market, on a locational and/or temporal basis and the procurement of balancing services. The current draft provides an excellent document that can be refined to deliver a robust framework guideline that will promote evolution of balancing to enable the single European market. ENTSOG does see some ambiguities and room for interpretation within the framework guidelines; wherever possible these should be addressed before the framework guideline is finalized so that the network code can be established with the necessary detail.

It is of the utmost importance that the Commission, ACER, ENTSOG and wider stakeholders work closely together to achieve progress towards a set of framework guidelines and network codes that further fosters the development of the European energy market. We appeal to ACER and the Commission to involve ENTSOG in the process of refining the framework guidelines after the close of the consultation period. This will ensure a common understanding of intention and aspiration of changes and enable ENTSOG preparation for network code development. ENTSOG will facilitate balancing developments and continue to interact with stakeholders. ENTSOG's aspiration is to deliver support for the development of the framework guidelines, providing a sound basis for the development of the network code on balancing.

Key messages

Balancing Target Model and Transition

The framework guidelines give some clear aspirations and the network code should transfer these into a balancing target model. For TSOs to achieve this target model, clear transitional steps can then be identified, including criteria to go from one step to the next. The starting point for each TSO is different, suggesting that different transitional steps might need to be identified. It is also important to note that each step will need a consolidation phase; measures implemented will need

some time before the effects the measure was aimed at will manifest themselves. A good example is the introduction of a virtual trading point, where experience shows that it takes time, possibly up to several years, before the market gains some liquidity, liquidity which can be fostered but not forced upon the market as confidence has to build.[1]

Shared responsibility

The regulation and the framework guideline clearly see balancing as a shared responsibility. The primary responsibility is on the network users to balance its portfolio, while the TSO is responsible for keeping the system within safe operational limits. Both the network user and the TSO will need access to flexible gas to meet their respective responsibilities. ENTSOG supports this shared responsibility and the competition between network users and TSO for flexible gas as part of the balancing target model.

Market based allocation of flexibility

A market based allocation of flexible gas through a wholesale market is a clear objective of market based balancing rules. Creating liquid wholesale markets for flexible gas and related balancing services will provide for an efficient allocation of flexible gas that will benefit both network users and TSOs. Balancing services need to be an enduring feature of a balancing regime where products on the wholesale market do not deliver all of the physical requirements essential for the TSO to fulfil its balancing requirements. TSOs will seek to reduce the amount of flexibility it holds under long term flexibility contract where possible and maximize the trading flexibility in wholesale markets, where the wholesale markets will provide the response looked for by the TSO in taking balancing actions.

Use of a merit order in taking balancing actions

Looking at the framework guidelines ENTSOG sees a clear merit order for the TSO to use in taking balancing actions. At the top there is the use of the wholesale market, subdivided in buying/selling flexible gas at the VTP and buying/selling physical flexible gas, possible temporal and/or locational. Below the use of the wholesale market there is buying of short term balancing services. At the bottom of the merit order there is the within-day use of contracted long term balancing services, including amongst others the option for direct access to storage.

[1] Section 1.5, Implementation, Paragraph 1.

Priorities

The framework guideline gives a clear priority to the objectives of minimising the cost of balancing the system and of maximising the TSOs use of short term wholesale market for its balancing. ENTSOG does see a tension in these two objectives. The objective of the Regulation and the framework guideline is to foster liquid wholesale markets and a more liquid wholesale market will have a greater positive impact on end consumer prices than a lower cost of balancing would have. Also as liquidity grows the costs for the TSO in buying/selling on the wholesale market might be expected to decrease. ENTSOG recognises the priority attached to developing wholesale markets but this needs to be considered in the context of seeking to keep TSO's balancing costs low given that ultimately the total costs of both TSO and network users will be borne by the customer.

Within-day obligations

Well-designed within-day obligations can contribute to and in some cases are essential to system integrity. They reduce the need for TSOs to take balancing actions and incentivise network users to take appropriate balancing actions during the day. The design of these obligations and the decision to introduce them should be assessed against the overall efficiency of balancing the network, taking account of all the costs, including those that will arise from network users managing their flows and the cost that TSOs would otherwise incur.

Information provision

ENTSOG understands the importance of the provision of information to network users to allow them to balance within-day. A part of this information is available to the TSO and the TSO can directly provide it to the network users. Other information should be provided to the TSO by third parties. A major part of the gas is consumed in the distribution systems and consequently information relevant for network users should be provided by the DSO. However in many systems not all the information required is available, for various reasons. Therefore balancing is carried out using a different model such as on a day-ahead forecast or within tolerances. Indeed the framework guidelines do include a provision which although is possibly inconsistent with other element of the document, allows network users to balance on a day-ahead forecast. ENTSOG believes steps can be set out in the network code, to show a path to take each TSOs model closer to the balancing target model. It is clear though that each step should be subject to a cost-benefit analysis to ensure that the cost of implementing the step do not outweigh the benefits achieved.

In light of the above, ENTSOG would also suggest that a stronger, more specific obligation on DSOs may be necessary. The current obligation to "cooperate" may be insufficient to achieve the necessary DSO support to reform certain information flows processes. In return for such a stronger obligation, a commitment to ensuring DSOs remuneration of efficiently incurred costs would be essential.

Cross-border cooperation

Over recent years there have been significant developments seeking to improve the integration of gas markets within Europe. At the London Target Model workshop the regulators presented data on the NWE gas markets that demonstrate a high level of integration already in 2009. ENTSOG expects that the implementation of the various framework guidelines through a common network code will further enhance this integration, as indeed is its intention. In this context ENTSOG proposes to further monitor this development by neighbouring TSOs and based on this monitoring in consultation with the stakeholders and NRA identify if and what initiatives could further foster the integration with the neighbouring markets. ENTSOG does not believe these initiatives to be trivial, looking for example at the impact of tariffs, interconnection capacity and revenue distribution, but is confident that the TSOs will take the initiative wherever they see an opportunity.

Compliance

It is ENTSOGs view that it is premature to specify a leadtime for implementation. However, based on practical experience of implementing regime change, the current proposal for the time provided to TSOs to implement the code is likely to be insufficient. Projects are unlikely to commence until the networks codes have passed through comitology and are finalised to provide a robust basis for implementation and for the neccessary funds to be sanctioned. Credible leadtimes can be established only after the network code has been developed. As part of the network code development ENTSOG will make recommendations about leadtimes including consideration of phased implementations, if appropriate, to deliver the fastest possible progress.

Response to specific topics

Flexible gas and balancing services

A market based allocation of flexible gas is a clear objective of market based balancing rules, an objective ENTSOG supports. Creating liquid wholesale markets for flexible gas and related balancing services will provide for an efficient allocation of flexible gas that will benefit both network users and TSOs. For this it is important that TSOs will minimize the amount of flexibility held under long term flexibility contract(s) and maximize the trading flexibility in wholesale markets, where the wholesale markets will provide the response looked for by the TSO taking balancing actions.

Looking at the framework guidelines, ENTSOG sees a clear merit order for the TSO to use in taking balancing actions. At the top there is the use of the wholesale market, subdivided in buying/selling flexible gas at the Virtual Trading Point and buying/selling physical flexible gas, possibly temporal and/or locational in nature. Below the use of the wholesale market there is buying of short term balancing services. At the bottom of the merit order there is the use of long term balancing services, including but not limited to the option for direct access to storage and LNG, flexible supply contracts and flexible supply contracts.

To manage linepack levels and keep the system within safe operational limits, the TSO has a need for flexible gas. The wholesale market may provide a good source of flexible gas for both TSO and network users to use for balancing purposes. From a short survey conducted by ENTSOG, it has become clear that for some TSOs it is generally sufficient to manage end-of-day linepack levels, i.e. the system has sufficient built-in flexibility to take care of the within-day fluctuations in linepack that might reasonably be expected to arise. In other systems however, the network user generated flows will induce within-day linepack levels that are outside the acceptable operational envelope; meaning that without constraints on user generated flows the TSO will need to take balancing actions to manage within-day linepack levels and/or linepack levels within specific sections of the network. Products can be developed, and may be secured, in the wholesale market that will provide the TSO the ability to manage these temporal and locational linepack levels.

The framework guidelines rightly recognize that there will be situations that the TSO cannot manage by taking actions on the wholesale market. In these situations the TSO can buy/sell flexible gas on a balancing platform or use balancing services it has procured. The ability of the TSO to contract and use long term balancing services, including direct access to physical tools of flexibility (e.g. storage either connected to the transmission or distribution system, LNG) and/or flexible supply contracts, should be maintained as a measure of last resort for those situations in which traded products and other balancing tools will not provide the flexibility the TSO needs to keep the system within safe operation limits. Typically these situations are of a locational and/or temporal nature, like the start-up of CCGTs. Most systems would require direct access to physical tools of flexibility, the main difference between systems will be the frequency with which these tools are needed. Consistency on this point is missing in the framework guidelines. From the definitions and some provisions in the framework guidelines it follows that balancing services are part of the general provisions, including direct access to storage, while other parts of the framework guidelines suggest that direct access is only part of the transition.

ENTSOG asks that the framework guidelines are consistent and allow the TSO to use a merit order in taking balancing actions that explicitly includes direct access to physical flexibility tools.[2]

The framework guideline gives a clear priority to the objectives of minimising the cost of balancing the system and of maximising the TSOs use of short term wholesale market for its balancing. ENTSOG does see a conflict in these two objectives. The objective of the Regulation and the framework guideline is to foster liquid wholesale markets and a more liquid wholesale market will have a greater longer term positive impact on end-consumer prices than a lower cost of balancing might have. Also as liquidity grows the costs for the TSO in buying/selling on the wholesale market will also decrease. In this context ENTSOG recognises a higher priority for developing wholesale markets relative to the priority for minimizing the cost for TSO's balancing actions, always being cognisant however of the total balancing costs, which will ultimately be borne by the customer.[3]

Marginal buy and sell price

Chapter 5 links the marginal buy and marginal sell price to trades by the TSO on the wholesale market; the marginal buy price the highest price the TSO has traded for and the marginal sell price the lowest. However, chapter 2 defines these two prices as the prices against which end of day imbalances of network users are settled with the TSO. ENTSOG suggests amending the definitions in chapter 2 to make them consistent with section 5.1 and the more general understanding of marginal prices. A proposal for amended definition is given.[4]

To put sufficient incentives on network users to balance their end of day position ENTSOG is of the opinion that there needs to be a minimum spread between the price for cashing out a short position (buy price) and the price for cashing out a long position (sell price). The buy price, against which the TSO will settle short positions held by network users, will default to average price in the market plus a small premium; the sell price, used to settle long positions, will default to the average less a small discount. If the TSO traded in the market for end of day delivery at the VTP the buy price will be the larger of the default and the marginal buy price; the sell price will be the lesser of the default and the marginal sell price. The price against which an imbalance is settled should reflect the value of gas for that day and take into account those trades that deliver the gas on that day. [5]

[2] Section 1.3 Objectives, Paragraph 7; Section 1.3 Objectives Paragraph 8, Section 1.4 Definitions, Balancing Services.

[3] Section 3 Buying and selling of flexible gas and balancing services by TSOs, Paragraph 3

[4] Section 1.4 Definitions, Marginal Buy Price, Marginal Sell Price, Section 5.1, General Provisions, Paragraph 6.

[5] [5] Section 1.4 Definitions, Marginal Buy Price, Marginal Sell Price, Section 5.1, General Provisions, Paragraph 6.

During the interim steps, the framework guidelines should allow TSOs to put stronger imbalance prices in place, an increase in the incentive uplift may be sufficient possibly in combination with tolerances, subject to NRA approval and cognisant of any impact on neighbouring balancing zones, if the ones in place are not providing a sufficient signal and increasing costs to all users. Differences in balancing regimes in neighbouring balancing zones, such as imbalance price, within-day obligations, tolerances, etc. will give rise to specific cross-border issues which will need to be addressed within the network code itself. [6]

Cost Recovery

The framework guidelines state that TSOs should be kept cost neutral in their balancing actions and ENTSOG supports this. They should also ensure TSOs are kept neutral for development costs in implementing the network code. [7]

Charging

The application of imbalance charges as envisaged in the framework guidelines will mean TSOs will not recover all of the costs related to balancing (for example tolerance costs, use of marginal pricing). Further consideration will be required on the network code preparation on the allocation of the remaining costs (or return of monies as the case may be) and how much they can be targeted to those that created the cost and how the remainder of the costs should be applied across network users.[8]

Incentives

Based on experience, ENTSOG believes that incentives on TSOs to procure efficiently (allowing TSOs to generate some additional cash-flow when improving the efficiency of balancing the system) for balancing end-of-day position will emulate competition better and motivate TSOs to look for optimizations. These incentives should be simple, easily monitored, transparent and should be based on targets that generate some upside potential for good performance.

[6] Section 5.1, General Provisions, Paragraph 6.

[7] Section 3, Buying and selling of flexible gas and balancing services by TSOs, Paragraph 2.

[8] Section 5.1, General Provisions, Paragraph 2.

ENTSOG believe that the incentive to maximise the use of the wholesale market for balancing gas may be better approached by using a routine NRA review to ensure performance, as it will be difficult to carry out through a formula based mechanism. [9]

This approach may also be appropriate for the early stages of minimising costs on the wholesale market. As the wholesale market becomes more liquid and the TSOs gain experience of trading in the market, then a formula based approach could be taken. [10]

Incentives should be structured to promote efficient use of traded market by TSOs and to create positive incentives to TSOs where there are actions well aligned with objectives to promote network users balancing. Incentives on TSO to manage within-day restrictions in an efficient way are a new concept and need careful consideration. A clarification from ACER and NRAs is necessary regarding the TSO´s role as price-taker, with reduced chance of having influence on the price market, and the implementation of incentives on balancing activities. [11]

The framework guidelines also provide for a charge for network users failing to meet within-day obligations, which ENTSOG support. Without charges and/or liabilities within-day constraints to contribute to system stability may not be ensured, thereby increasing the overall cost of balancing.

Scope of market based balancing

ENTSOG agrees to consider emergency provisions as a national issue and beyond the scope of the balancing network code.

Linepack/tolerances

ENTSOG assumes that both a linepack service and tolerances offer flexibility relative to an end-of-day settlement. Therefore it would be more appropriate to put this in the section on imbalance charges.[12] The process for imbalance charges can be considered as consisting of four steps:

1. Calculate the imbalance
2. Determine the cash-out quantities from the calculated imbalance
3. Derive the settlement prices
4. Settle cash-out quantities

[9] Section 3.1, Balancing services and flexible gas products, Paragraph 2.
[10] Section 3 Buying and selling of flexible gas and balancing services by TSOs, Paragraph 2.
[11] Section 3 Buying and selling of flexible gas and balancing services by TSOs, Paragraph 2.
[12] Section 2.2 Interim Measures, Paragraph 1 moved to Section 5.2 Interim Measures, Paragraph 2.

ENTSOG's understanding is that linepack services and tolerances would be used in the second step, calculation of the cash-out quantities, of this process. In ENTSOG's view there is a spectrum of linepack services and tolerances. At one end there is an explicitly nominated linepack service seen as a virtual storage service, requiring network users to nominate gas into and out of this virtual storage. The effect would be a carry-over of an end-of-day position (EOD) to the next day. Nominations to/from the virtual storage would also impact the within-day positions of the network user.

At the other end there is tolerances seen as a service that provides an "insurance" for shippers to reduce cash-out exposure at the EOD (with predetermined tolerances levels), the tolerances being provided to all network users and imbalances within the tolerance settled against a more favourable price. Other forms of tolerances can be to assign tolerances to a specific group of network users, or commercialized as an optional service.

Tolerances might be used where information to network users is not yet sufficient, e.g. where real-time allocations on Non Daily Metered (NDM) customers are not sufficiently available. A tolerance service would not require a nomination to use the service. Imbalances within tolerance could either be settled in kind or against a more favourable price. As such the use of tolerances might introduce additional costs (lower price for cashing out short positions, higher price for long positions) that need to be socialised. Another aspect to consider when using tolerances is the impact it could have on the development of liquidity; fewer incentives to balance will reduce the incentive on trading, which in turn would reduce liquidity. In addition tolerances could reduce the effects of the TSO trading in the wholesale markets if the network user would for example sell gas to the TSO and deliver this gas from out of its tolerances. There is merit in ACER and ENTSOG discussing the structure of tolerances and their application in the pre-network code development phase.

Buying and selling of flexible gas and balancing services by the TSOs

Balancing services and platforms

ENTSOG commits to moving to buying/selling of flexible gas and balancing services on the wholesale market wherever this is possible. The framework guidelines recognize that wholesale markets that are not sufficiently liquid might prevent TSOs relying solely on these markets and balancing platforms can offer an alternative platform for market based procurement of flexible gas and balancing services. ENTSOG is of the strong opinion that the liquidity of the wholesale market is not a sufficient condition for the TSO to solely rely on wholesale markets. Also in a liquid wholesale market the gas traded may not be delivered in a way that efficiently supports the response the TSO is looking in a balancing action.

The type of balancing actions to be taken by the TSO will differ from the actions taken by the network users. Whereas the network users might only have an end-of-day target to aim at, the TSO will additionally have to consider within-day and locational constraints. For this it may need different type of products, products for which it may be more challenging for a reliable and liquid wholesale market to evolve. As a result it is possible that it will be more economic and efficient that these products be bought/sold on a balancing platform. Balancing platforms need to be an enduring

feature of a balancing regime for the locational and temporal balancing energy and balancing services[13]. The network code should identify requirements on the design of balancing platforms.

The purpose and the scope of cross-border balancing platforms are still unclear to ENTSOG. One potential option could be to allow a network user to offer balancing gas to both TSOs on one common platform or on two coordinated platforms; when one TSO takes the offer, the offer would not be available anymore to the other TSO. ENTSOG welcomes opportunities to explore alternative views on the use of cross-border balancing platforms with stakeholders and ACER.

ENTSOG welcomes the opportunity for a TSO to ask for an exemption for establishing a balancing platform and directly enter into a contract for balancing services. The criterion for such an exemption – insufficient interconnection – is too restrictive in our view. The issue is also about the availability of flexible gas being sufficiently close to the area in which flow changes and/or linepack levels need to be managed to ensure system integrity. [14]

Within-day obligations on network users

ENTSOG agrees with the observation that well designed within-day obligations can contribute to and in some cases are essential to system integrity and reducing the need for TSOs to take balancing actions. Where within-day obligations are required, they will reduce both the cost of TSO balancing and the amount of cross-subsidies between network users. The design of within-day obligations and the decision to introduce them should be assessed against the overall efficiency of balancing the network taking account of all the costs including those that will arise from network users managing their flows as well as the cost that TSOs would otherwise incur.

Within-day obligations can have different forms, varying from constraints on individual entry or exit points to constraints on the within-day imbalance position of a network user. An example of an obligation on individual network points is the maximum hourly flow over an entry or exit point. A second type of obligation, which is already used in some systems, is on changes in flow rate during the day; flows need not be flat over the day, but variations should remain within agreed upon change rates. Another within-day constraint could be a limited allowed deviation from forecasted consumption. Any larger deviation should be communicated within a certain lead time to allow TSOs to take appropriate actions. A further example of within-day obligations on the imbalance position of a network user is the requirement that its cumulated imbalance must stay within specified limits.

[13] Section 3.2, Interim Measures, Paragraph 1; Section 3.2, Interim Measures, Paragraph 2; Section 1.3 Objective, Paragraph 8; Section 1.3 Objective, Paragraph 9.
[14] Section 3.2 Interim Measures, Paragraph 4.

It may be efficient or in some cases even necessary to place these restrictions on network users as they are directly related to genuine system needs and help reduce the balancing role of the TSO significantly. There are several examples of within-day obligations that do reduce the need for the TSO to take balancing actions and still leave the network users in a good position to effectively balance their portfolio. Especially for an interconnector, connecting two wholesale market by a single pipeline with no other inputs and off-takes, where there is no scope for developing a wholesale market or a balancing platform, the use of within-day obligations can be highly effective and (almost) remove the need for TSOs to take balancing actions without imposing an undue barrier to network users to efficiently balance its portfolio and meet its within-day obligations.

A certain amount of harmonization of within-day obligations may be necessary, specifically to avoid arbitrage between balancing regimes.

Renomination rights

For operational purposes network users have to nominate their flows on a day-ahead basis, after which they have the ability to renominate. The aims of market based balancing include network users having the primary responsibility to balance their portfolio and the integration of markets, by facilitating cross-border trade and cross-border balancing. Any restrictions on renomination rights should be carefully considered against these objectives. From a network user's perspective the renomination rights should be as liberal as possible to maximize their ability to balance its portfolio and enable them to trade and effectively buy/sell flexible gas from/to other network users; from a TSO's perspective renomination rights should provide a clear expectation of physical flows and be strict enough to efficiently operate its system, minimize balancing costs and maximize capacity.

The framework guidelines are clear on the fact that TSOs will not be allowed to require network users to submit balanced nominations. Currently there are TSOs that have this requirement in place, as it provides for a discipline that will ensure that network users achieve a system balance thereby ensuring less TSO interventions for balancing. This requirement will in particular impact crucial interconnection points with a large proportion of transits or large exit points. It is crucial for ENTSOG to better understand this requirement in the framework guideline and the benefits it is expected to bring. This would allow for an assessment of these benefits against the increased risks for system operation and identification of possible measures to mitigate these risks. The framework guidelines should explicitly allow for a transitional period.[15]

[15] Section 4.3, Interim Measures, Paragraph 1.

Information provisions

ENTSOG recognizes the importance of network users having sufficient reliable and timely information in order to efficiently manage the risks and opportunities in their portfolio. A significant element of this information is available to the TSO and/or the DSO. The TSO should have the obligation to make this information available to the network user, although ENTSOG would highlight its belief that the network user has the primary responsibility to obtain the information necessary to carry out efficient portfolio balancing actions.

While network users need sufficient, reliable and timely information to balance its portfolio, the TSO also needs sufficient, reliable and timely information to balance the system. Parties that can provide the TSO with the relevant information should equally have an obligation to provide this information to the TSO. This would increase predictability of flows and thereby the capability of the system, contributing to the benefit of all. An example of this information is for expected off-takes from the system like from distribution systems and CCGT. This aspect needs to be included in the network code and ENTSOG asks that it is also incorporated in the framework guidelines.[16]

Information on the interconnection between transmission and distribution systems

The rules set out in the framework guidelines see network users balance on actual flows within the day, thereby reducing the TSOs role in balancing the system. It is network user's primary responsibility to match its entries into its portfolio with the exits from it. Under this model, imbalances are allocated to network users based on their physical flows on the day. Therefore those network users that cause balancing actions are the parties who pay for it. This model should also see increased within-day trading on the wholesale market.

As stated above, ENTSOG recognizes the importance of network users having sufficient reliable and timely information, to allow them to efficiently manage their within-day balancing. In the absence of demand information during the balancing period, the framework guidelines does include a provision which, although is possibly inconsistent with other element of the document, allows network users to balance on a day-ahead forecast. In these circumstances, less responsibility is placed on the network user to balance within-day and more on the TSO.

Any demand forecast which estimates actual physical flow allocation will have some degree of error and balancing against a day-ahead demand forecasts puts the risk of this error with the TSO, most likely resulting in the TSO having a larger role in balancing, with the likely greater imbalance costs to be recovered from the network users, increasing the socialisation of costs. The greater the accuracy

[16] Section 4.2 Nomination Procedure, Paragraph 2.

of demand forecasts and within-day updates the greater the ability of network users to balance their inputs into the system with their off-takes, thereby limiting the increase of the TSOs role in balancing.

The key to delivering the within-day model envisaged in the framework guidelines is the delivery of timely flow information to network users. Network users will require updated flow information for the total sum of their customers, which may arise from loads connected to either the transmission and / or distribution system.

TSOs will have up-to date information on network users off-takes where the customer takes gas directly from the transmission system and should provide this information to the network user as set out in the framework guidelines (the frequency with which the TSOs provide information to network users should be subject to cost benefit analysis as an excessive frequency might inflate costs to unjustifiable levels.). However the TSO will see gas flowing into the distribution system in aggregate and not by network user which therefore requires the DSOs support in order to compile the data by network user. This is captured in the framework guidelines which oblige DSOs to cooperate with TSOs in providing the necessary information requirements.

It is clear to ENTSOG however, that regardless of their obligation to cooperate, presently not all DSOs are in a position to provide such information for many reasons; resources, IT systems, within-day metering, limitations on demand attribution algorithms. There are many different DSO models in place across the member states varying from many hundred DSOs in some states to a small number of larger companies in others. Because of this, many TSOs are unable to provide network users with sufficient information within-day to allow them to balance against a demand assessment made at the end of the day, meaning the network users are balanced using different models such as on a day-ahead basis, allowing tolerances on within-day flows, etc. This could be an example of stopping short of implementing the balancing target model because the costs would not outweigh the benefits

Clearly TSOs cannot commit to providing information which is outside of their control to source. This is reflected in Regulation 715 which states “the information provided shall reflect the level of information provided to the transmission system operator”. [17]

ENTSOG understand the present need for the different types of models, but believes a route can be set out to achieve harmonisation as much as possible to deliver the within-day model. Steps can be

[17] Section 6, TSO information provision obligations, Paragraph 1.

set out in the Network Code, to show a path to take each TSOs model closer to the within-day model.[18]

It is clear though that each step should be subject to a **cost-benefit analysis** to ensure that the cost of implementing the step do not outweigh the benefits achieved. More work would be required to understand what the steps might be, but initial thoughts on examples would be:

- Provide network users with aggregate information flows within-day, which could be compared to aggregate flows for previous days, etc.; in order to support more accurate forecasting by network users.
- Allow network users to fulfil their balancing obligations with forecast information day-ahead.
- Allow network users a tolerance for their NDM customers for which sufficient information is not provided, which would roll over for a defined period. Other types of tolerance proposals could be investigated;
- Improved demand estimation algorithms; this may simply be an improvement to the within-day algorithm calculating the forecasted aggregate demand for all network users, taking account of actual temperatures;
- DSOs to implement new systems where needed in order for the DSOs to provide information as required;
- The development of an IT infrastructure / platform(s) which gather information, allocations, etc , where there are various different operating models that could be applied.

For each step taken, the respective NRAs approval to progress (or not as the case may be) could be sought.

The costs involved in implementing such steps need to be investigated and are likely to include IT Systems, better flow information (potentially including metering roll-outs), resources, etc. The benefits are likely to be better targeting of imbalance costs to network users, increased within-day liquidity on the wholesale market. These costs and benefits should be compared with those of the alternative, like balancing against a day-ahead forecast.

In light of the above, ENTSOG would also suggest that a stronger, more specific obligation on DSOs may be necessary. The current obligation to “cooperate” may be insufficient to achieve the necessary DSO support to reform certain information flows processes. In return for such a stronger

[18] Section 6, TSO information provision obligations, Paragraph 6

obligation, a commitment to ensuring DSOs remuneration of efficiently incurred costs would be essential.[19]

Cross-border cooperation

Over recent years there have been significant developments seeking to improve the integration of gas markets within Europe. At the London Target Model workshop the regulators presented data on the NWE gas markets, that demonstrate the high level of integration already in place.. ENTSOG expects that the implementation of the various framework guidelines, through a common network code will further enhance this integration, as indeed is its intention. In this context ENTSOG proposes to further monitor this development by neighbouring TSOs and based on this monitoring in consultation with the stakeholders and both NRAs identify if and what initiatives could further foster the integration with the neighbouring markets. ENTSOG does not believe these initiatives to be trivial, looking for example at the impact of tariffs, interconnection capacity and revenue distribution, but is confident that the TSOs will take the initiative wherever they see an opportunity.

The delivery of the balancing model envisaged within the Framework Guidelines, will increase the role of network users within-day, reduce the role of the TSO and increase wholesale market liquidity and harmonise balancing rules. Therefore, seeing that gas markets do integrate over time with increasing liquidity of markets, more efficient allocation mechanisms and procedures and further harmonisation of balancing rules, ENTSOG advocates to carefully consider the additional benefits of the merger of cross-border balancing zones, particularly given the challenges associated with creating larger zones, before entering such projects.

Harmonisation of some rules is necessary for merging cross border zones. Sufficient cross-border capacity is another necessary precondition. Merging cross border zones can come with considerable consequences such as capital costs in new infrastructure, flow commitments, reductions in technical entry and exit capacities, increased congestion management and TSO balancing within the enlarged zone. Other issues to be harmonized in advance of a merger of balancing zones that would require careful consideration are:

- National Legislation
- Tax
- Currency
- Emergency Arrangements
- Governance (Regulators, Governmental, Balancing Company)

[19] Section 6, TSO information provision obligations, Paragraph 5

Although by no means insurmountable, the above list does demonstrate the extent of issues which will need addressing, some of which are outside the control of the TSO and some even outside of the scope of NRAs and the regulation. There are certain costs such as changes to the business practices of the TSOs and also possible costs such as investment in interconnection capacity. Indeed ENTSOG welcomes the concept of cost benefit analysis to consider such projects And the prospect of cooperating with the regulators to find solutions to the cross border allocations of costs and benefits.

The second paragraph in Section 7 on Cross Border balancing tasks TSOs with consulting on proposals to integrate European Gas Markets. In the context of Framework Guidelines on balancing this scope appears to be very wide and possibly inappropriate for TSOs to carry out. [20]

In light of the above ACERs, NRAs, TSOs and indeed ENTSOGs focus should be on the implementation of the Framework Guidelines themselves, which will facilitate the movement towards greater market integration.

Compliance

It is ENTSOGs view that the time provided to TSOs to implement the network code is insufficient. Projects are unlikely to commence until the networks codes have passed through comitology and the neccessary funds can be sanctioned. Credible leadtimes can be established only after a the framework has worked out in more detail through the network code development. During this process ENTSOG will propose credible implementation times to be included in the network code.[21]

[20] Section 7, Cross-border Cooperation, Paragraph 2.
[21] Section 8, Compliance, Paragraph 1.

ANNEX to ENTSOG Response to ACER Framework Guidelines Consultation

Framework Guidelines on Gas Balancing in Transmission Systems

ENTSOG Suggested refinements to ACER Document DFGC-2011-G-002

This document has been produced to complement ENTSOGs response to the consultation on the above document and aims to give some examples of the changes that would follow from the response made by ENTSOG. To ensure that ENTSOG has a thorough understanding of the context of many sections of the framework guidelines ENTSOG believes it is essential to discuss the framework guidelines in detail with ACER. The refinements given here cannot be considered to be exhaustive and further interaction with ACER is necessary to ensure a set of robust, precise, concise and accurate framework guidelines that will provide a sound basis for the development of a high quality network code.

ANNEX to ENTSOG Response to ACER Framework Guidelines Consultation

This Document contains the draft Framework Guidelines on Gas Balancing in Transmission Systems, which the Agency for the Cooperation of Energy Regulators (ACER) is preparing pursuant to Article 6 of Regulation (EC) No 715/2009 and on the basis of a request from the European Commission.

The draft Framework Guidelines contained on this document are issued for consultation of ENTSO for Gas and other relevant stakeholders, who are invited to submit their comments by:

12 June 2011

by sending them to:

consultation_2011G002@acer.europa.eu

Related Documents

CEER/ERGEG documents

[1] "Gas Balancing in Transmission Systems" Framework Guidelines, 10 March 2011, Ref E10-GNM-13-03

[2] "Gas Balancing Rules on European Gas Transmission Networks: Draft Pilot Framework Guideline", Public consultation document, ERGEG, August 2010, Ref: E10-GNM-13-03

[3] "Pilot Framework Guideline on gas balancing rules - Instructions for responding to the public consultation", ERGEG, August 2010, Ref: E10-GNM-13-03b

[4] "Gas Balancing Rules on European Gas Transmission Networks - Draft Pilot Framework Guideline, Initial Impact Assessment", ERGEG, August 2010, Ref: E10-GNM-13-04

ANNEX to ENTSOG Response to ACER Framework Guidelines Consultation

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ANNEX to ENTSOG Response to ACER Framework Guidelines Consultation

1. General Provisions

1.1. Introduction

The gas markets in Europe are fragmented, with several balancing zones across the European Union (EU) and different balancing arrangements applying in neighbouring markets. This entrenches the market power of incumbents and increases the barriers to new entry into the EU gas markets. In many Member States, network users do not yet have regular information during the balancing period on whether their portfolio is in balance or have access to liquid wholesale markets to trade flexible gas. This impedes new entrants' ability to balance their portfolios and increases their exposure to imbalance charges. It also means that Transmission System Operators (TSOs) undertake most of the network balancing and, in order to fulfil this task, hold options to significant amounts of flexible gas, via long-term contracts, which could otherwise be traded in the wholesale market. In many balancing regimes, imbalance charges do not reflect the cost of the TSO balancing the gas network. This can result in incentives for inefficient behaviour and cross-subsidies between network users which could be considered discriminatory[1].

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[2] (Gas Regulation).

The network code on gas balancing will apply to balancing regimes for transmission systems within EU borders.

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.

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.

[1] Respondents to ERGEG's consultation on a gas balancing draft framework guideline and initial impact assessment[1] shared this assessment. A majority of respondents encouraged ERGEG to introduce a market-based balancing regime, where TSOs' roles are minimised and cost-reflective imbalance charges incentivise network users to balance their portfolios. Where TSOs currently hold long-term contracts to obtain flexible gas, a balancing regime that encourages TSOs to procure flexible gas on a short-term basis would allow flexible gas to be released to the wholesale market, which may enhance competition and trading in markets that currently lack liquidity.

[2] Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005. The requirement for the network code is set out in Article 8, the requirement for the framework guideline in Article 6.

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 achievement of the objectives will be subject to the genuine system needs and the safe and secure operation of the transmission system.

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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.

To this end, article 21 of the Gas Regulation requires TSOs to:

- provide sufficient, well-timed and reliable information on the balancing status of users to enable network users to balance (Article 21(2));
- apply imbalance charges that are cost-reflective to the extent possible, whilst providing appropriate incentives on network users to balance their inputs and off takes of gas (Article 21(3)); and
- endeavour to harmonise and streamline balancing structures and imbalance charges in order to facilitate gas trading (Article 21(4)).

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. Network users shall receive up to date information on their own balancing position as well as the system's balancing status during the balancing period to enable them to do this. This will minimise the TSO's role in balancing and increase that of market participants, if flexible gas is released and wholesale markets, which allow for the trade of flexible gas between network users either bilaterally or via an exchange, are developed in parallel.

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 the products could not guarantee the integrity of the system, it may be appropriate for the TSO to procure balancing services on a balancing platform or have access to longer term balancing services like storage contracts and flexible supply contracts. Balancing platforms could be used by more than one TSO, potentially in different countries, where sufficient cross-border interconnection capacity exists[3].

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[3] In this respect, TSOs shall regularly explore opportunities to improve the way in which they interact across balancing zones, including potentially merging or coupling these, in order to allow flexible gas to move where it is valued most. The network code(s) adopted according these Framework Guidelines will result in some harmonisation of the products which TSOs procure, which is also expected to enhance cross-border trade.

The network code on gas balancing shall also define a harmonised balancing period of 24 hours with cash-out at the end of the gas day[4]. Where the TSO needs to take balancing actions within this balancing period, it will procure these balancing services on the wholesale market – or, on the balancing platform.

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1.4. Definitions

For the purpose of these Framework Guidelines, the following definitions apply:

- **Balancing period** – the period within which the off-take of an amount of natural gas, expressed in units of energy, must be offset by every network user by means of the injection of the same amount of natural gas into the transmission system in accordance with the transportation contract or the network code on gas balancing (as defined in Article 2(10) of the Gas Regulation).
- **Balancing platform** – a trading platform on which flexible gas is bought and sold, balancing services are procured and the TSO is party to every trade.
- **Balancing regime** – the rules and agreements that apply to portfolio and TSO balancing, including the procurement of balancing services and imbalance charges.
- **Balancing services** – additional services (i.e. additional to the buying and selling of flexible gas) that a TSO may buy in order for the system to remain within safe operational limits, for example the ability to inject and withdraw gas into/from storage.
- **Balancing zone** – an entry-exit system to which a specific balancing regime is applicable.
- **Cross-border balancing zone** – a balancing zone which consists of (parts of) more than one Member State.
- **Cross-border balancing** – the exchange or trading of flexible gas between neighbouring balancing zones in order to improve efficiency and facilitate market integration and the arrangements of network users to net their imbalances across two adjacent balancing zones. These balancing zones could be within the same, or in adjacent Member States.
- **Flexible gas** – gas required to meet short term fluctuations in demand by customers. It also contributes to overall system security by responding to unexpected system outages.

[4] Some respondents to ERGEG's consultation recognised that balancing obligations (either technical or financial rules) on network users may need to be imposed during the day. However, some opposed obligations which require network users to maintain a particular balance in their portfolios during the day and which if not respected lead to a financial penalty being imposed.

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

- **Imbalance charge** – the charge applied by a TSO to network users (or payment received by a network user) for financial settlement of the differences between their inputs into and off-takes from the gas transmission system.

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

- **Liquidity** – the ability to quickly buy or sell reasonable volumes of gas without causing a significant change in price and without incurring significant transaction costs. A key feature of a liquid market is that it has a large number of buyers and sellers willing to transact at all times. The assessment of market liquidity shall include a consideration of the volumes traded, churn rates and the number of players on the market.

- **Local balancing** – the actions undertaken by the TSOs addressing imbalances at particular locations within the system.

- **Long-term flexible gas products** – gas products traded for more than two days and up to one year, i.e. including weekly, monthly and annual durations.

- **Marginal Buy Price** – a price based on the higher of the highest price of any gas balancing trading to which the TSO is a party in respect of the balancing period (excluding locational or temporal products) or based on the weighted average price of gas traded on the wholesale market[5] that day plus a small premium to incentivise network users to balance.

- **Marginal Sell Price** – a price based on the lower of the lowest price of any gas balancing trading to which the TSO is a party in respect of the balancing period (excluding locational or temporal products) or based on the weighted average price of gas traded on the wholesale market that day minus a small discount to incentivise network users to balance.

- **Network user** – a party that uses the transmission system to transport gas from one location to another or to trade gas at the virtual trading point.

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[5] This will require robust, available, transparent data and therefore may need to be limited to data arising from a designated exchange.

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

- **Short-term flexible gas products** – gas products traded intraday, day-ahead, two days-ahead of gas delivery or for 2 days over a weekend.

- **Transmission system (or system)** – a high pressure transmission network consisting of terminals, compressor stations, pipeline systems and off-take points within a Member State. For the purposes of these Framework Guidelines, Liquified Natural Gas (LNG) and storage facilities are not included in the transmission system because, for the purposes of gas balancing, whilst very important as providers of flexible gas, these facilities are treated like any other entry or exit point.

- **TSO balancing** – the actions undertaken by the TSO to ensure that the system stays within its accepted operational limits[6].

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

Comment [RvdM1]: Superfluous in a definition

Comment [RvdM2]: This is not part of a definition, but rather an aspiration?

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

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 NRA has approved them. Sufficient time should be allowed between steps for all participants to become familiar with each step and to accommodate changes in processes procedures and systems. The network code should require that criteria are established to determine when the next steps should be taken to progress the implementation of the network code.

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In order to ensure the integrity of the system, it may be necessary for existing balancing services to be maintained while new services are trialled[7].

[6] The need for TSO balancing arises from differences between the aggregate inputs and off-takes of network users, but may be unrelated to network users being out of balance individually.

[7] For example the use of a bilateral contract for flexible gas in early stages of a balancing platform.

TSOs shall be cost neutral in relation to the development of the rules set out in the network code.

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 994/2010[8] 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).

For the avoidance of doubt, the methodologies establishing the terms and conditions for the provision of gas balancing services that NRAs fix or approve under the provisions of Article 41(6)(b) of the Gas Directive shall be consistent with the network code on gas balancing.

The network code on gas balancing shall require the European Network of Transmission System Operators for Gas (ENTSO-G) 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 provide for network users to balance their portfolios by matching their inputs into and off-takes from each system during the relevant balancing period. The 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 create EU wide rules on gas balancing. When implementing the network code, TSOs shall consider the impact of their balancing rules on the development of trading with adjoining transmission systems. Where this is needed to implement the code effectively, TSOs shall coordinate balancing activities with other TSOs.

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 transmission system.

[8] Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC.

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 into a system against customer off-takes from the system 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 markets.

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. TSOs shall be cost neutral in relation to their balancing activities.

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). To help promote liquidity and encourage TSOs to gain experience in trading in the wholesale market 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 gas for balancing purposes 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.

The priority to developing wholesale markets needs to be considered in the context of seeking to keep TSO's balancing costs low given that ultimately the total costs of both TSO and network users will be borne by the end consumer.

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 include services for a particular volume of flexible gas and services that offer options to inject and withdraw a particular volume of flexible gas.

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The network code on gas balancing may provide network users with tolerance levels that shall reflect genuine system flexibility and user needs and address in particular the needs of small users and new entrants. These tolerances may be free 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.¶
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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. Where the wholesale market is not sufficiently liquid or does not provide the required products, the TSO may use a balancing platform and/or long term balancing services. NRAs may review TSOs' compliance with the requirement to maximize use of long term standardized wholesale market products and set out measures to promote such compliance.

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).

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, in which gas is delivered between defined hours of the day and / or locational products in which gas is to be delivered at certain locations on the system.

Where a wholesale market is insufficiently liquid, 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 a balancing platform facilitates future procurement of flexible gas on the wholesale market.

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. Balancing platforms shall only be used where there is no liquid wholesale market or the products available on the market cannot ensure the physical integrity of the system and may cover more than one balancing zone. This shall be without prejudice to the possibility of NRA to grant exemptions, as specified below. The network code on gas balancing shall set out criteria on the design of balancing platforms.

The network code on gas balancing shall 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, it may be efficient for a joint balancing platform to be established for more than one balancing zone. The network code shall specify the arrangements for TSOs to cooperate in using such joint balancing platforms.

3.2. Interim measures

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 enter into a contract with one or more providers of flexible gas. This exemption shall only be granted where the NRA is satisfied that a balancing platform would not increase liquidity in the market for balancing services and would not enable the TSO to balance the system more efficiently. The price and the terms and conditions 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.

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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. This interim step can increase liquidity in short term gas markets.

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4. Balancing period and nomination procedures

4.1. Balancing period

The balancing period is the time interval at the end of which network users are subject to imbalance charges for any net deviations accumulated over the duration of this interval, between their inputs into and off-takes from the system. In other words, at the end of the balancing period network users will be financially settled[9] for any net imbalance over the period and the imbalance of their portfolios shall be reset to zero. For the avoidance of doubt, being financially settled after this interval does not preclude network users from engaging in portfolio balancing activities during the interval.

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The network code on gas balancing shall provide that the balancing period for a transmission system is a standardised daily interval, at the end of which network users are cashed out for any deviations, as accumulated over the course of the preceding 24 hours, between their inputs into and off-takes from the system. 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 in the network code on Capacity Allocation Mechanisms[10].

Where the TSO needs to take balancing actions in respect of a[11] day (day-ahead and/or within-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.

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The network code on gas balancing shall set out for the balancing services required for within-day balancing to be procured in a market-based manner, pursuant to Section 3 of these Framework Guidelines.

[9] Network Users may be both over or under delivered.

[10] 5.00 to 5.00 UTC/GMT means 6.00 to 6.00 CET - Central European Time.

[11] Actions may be taken before and during the day to ensure the system will be able to balance on the day.

The network code on gas balancing shall require that within-day obligations shall not act as an undue barrier to new network users entering the market. Where such obligations apply, TSOs 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 certain within-day obligations which would pose undue barriers on new entry into the European gas markets or on cross-border trade. These may include, for example, obligations for network users to match individual inputs and off-takes on an hourly basis.

The network code on gas balancing shall, if the NRA deems this necessary, require TSOs 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. It shall require TSOs to seek NRA approval before imposing any within day obligations. In deciding whether or not to approve such arrangements, 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 concerns have been raised that the obligations proposed by the TSO may adversely impact on cross-border trade, one of the relevant NRAs may refer the proposals to ACER for a decision.

4.2. Nomination procedure

If not covered by other legal obligations, the network code on gas balancing shall set out criteria for nomination and renomination procedures to be harmonised at both sides of the border at interconnection points and consistently across Europe, as these may be 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.

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The network code shall require the network users to provide TSOs with sufficient, reliable and timely information to provide a robust basis for the TSO to take decisions on balancing actions

4.3 Interim Measures

Where a liquid wholesale market is not available, the network code on gas balancing shall allow TSOs to require that network users nominate input volumes which match their output volumes or vice versa as an interim measure, subject to NRA approval.

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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. The network code shall set out how those costs incurred by TSOs from undertaking balancing activities that are not directly attributable to a network user causing imbalances may be shared across all network users. Imbalance charges shall be targeted on the network users contributing to the imbalance and therefore shall not include other charges.

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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 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 Marginal Sell price defined in 'Section 1.4 Definitions' include a small adjustment to incentivise users to balance. This uplift or reduction 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.

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5.2. Interim measures

Where, because of insufficient liquidity in the wholesale market, the TSO uses a balancing platform 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 and address in particular the needs of small users and new entrants. 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.

6. TSO information provision obligations

The network code on gas balancing shall provide that available 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. Consistency across Europe is also required in how information is published to prevent information barriers hindering cross border trade.

The network code on gas balancing shall require TSOs to set out the detailed information needed to comply with the provisions outlined below.

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 the system and off-takes from the system at appropriate intervals during the balancing period in order for network users to be able to balance their portfolios. Appropriate intervals reflect the exposure of network users to imbalance charges and other balancing charges, taking into account amongst other, any within-day obligations (as set out in Section 4.1) put on network users as well as linepack services and tolerances offered.

Deleted: shall be at least twice a day or more frequently if necessary to allow network users to comply with

The network code shall require Distribution System Operators (DSOs) to cooperate with TSOs and provide the relevant information to enable TSOs to comply with the requirements on information provision set out in this Section. DSOs should be allowed to recover efficiently incurred costs necessary to provide such information. ENTSO-G shall involve DSOs in the drafting of the relevant sections of the network code on gas balancing.

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 a forecast 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. [12]

[12] Please see ENTSOG response view on this section.

In accordance with Chapter 3 of Annex 1 to the Gas Regulation, the network code on gas balancing shall provide that TSOs publish, per balancing zone, the amount of gas in the transmission system at the start of each gas day and the forecast of the amount of gas in the transmission system at the end of each gas day. The forecast amount of gas for the end of the gas day shall be updated on an hourly basis throughout the gas day. If imbalance charges are calculated on an hourly basis, the transmission system operator shall publish the amount of gas in the transmission system on an hourly basis. Alternatively, TSOs shall publish, per balancing zone, the aggregate imbalance position of all users at the start of each balancing period and the forecast of the aggregated imbalance position of all users at the end of each gas day. If the national regulatory authority is satisfied that such information could give room to potential abuse by network users, it may decide to exempt the transmission system operator from this obligation.

7. Cross-border cooperation[13]

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.

For that purpose relevant TSOs shall consult on proposals to integrate European gas markets, including an impact assessment of the expected costs and benefits and on the timeline for completion. The proposal shall be subject to approval by the relevant NRAs. TSOs shall notify ACER at the beginning of this approval process to enable its opinion to be considered in the NRAs decision.

The network code on gas balancing shall require ENTSO-G to regularly review the progress of harmonisation of rules in adjacent balancing zones in order to identify possible mergers of entry-exit zones, 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 require TSOs to make proposals to implement cross-border balancing projects in the European gas regions. The proposals shall be based on the results of a public consultation, which shall include a cost/benefit impact assessment of the options for cross-border balancing.

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

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

[13] Please see ENTSOG response for position on this section.

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¶
<#>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. ¶
¶
The cross-border balancing arrangements envisaged in the network code on gas balancing

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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.

8. Compliance

The network code shall include leadtimes for implementation of the network code. Different implementation deadlines may be specified for different parts of the network code.

Where TSOs implement any of the requirements known as interim steps, TSOs shall send a report explaining why this is the case to the competent NRA and to ACER. The report shall propose a roadmap including a plan for moving away from the interim steps and shall be submitted to the NRA and ACER every twelve months. TSOs shall publicly consult on these reports before their submission to the NRA and ACER. The competent NRA, taking full account of ACER's view, shall approve the roadmap or may require the TSO to modify it.

ACER will review the progress reports set out above in the framework of its monitoring activity according to Article 9(1) of the Gas Regulation.

Deleted: 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 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 steps.