

## Appendix 1:

### ENTSOG General Response to Initial IIA (E10-GNM-13-4)

#### 1 General matters

##### 1.1 Problem identification and objectives

The purpose of the framework guideline is to give clear and objective guidance for the network code development. To better understand and use the principles and target model it is good to understand what issues there are with regards to balancing and what objectives are to be met with implementing the network code. This section will give an overview of the problems and general objectives identified in Chapter 2 “Problem identification” of the IIA published by ERGEG as ENTSOG understands them from the text provided in the IIA.

The section in chapter 2 of the IIA “The role of network users and the TSO in balancing” identifies the problem that as regimes evolve towards more market based approaches and more commercial freedom for network users then the TSOs will have less direct control over entry flows onto and exit flows off the system to ensure system integrity. The solution to this problem has been and remains to be sought in a set of balancing rules for network users that will provide financial incentives on individual users that are sufficient to keep aggregate flows close to the acceptable operational envelope. These rules should leave an acceptable small role to the TSO and take into account locational and temporal requirements that stem from genuine system needs. A simple commoditized balancing regime with the financial settlement of the end of day position will most likely provide the best conditions for development of a liquidly traded market. The challenge will then be to find balancing rules that will provide for the locational and temporal requirements that will promote market based mechanisms and allow for the development of traded products that support these balancing rules, have the potential to develop sufficient liquidity while at the same time can provide for the physical entry and/or exit flows required by the system to stay within acceptable operation envelopes.

As balancing rules are implemented to allow the TSO to meet its overall responsibility to keep system parameters in acceptable operational envelope it is important that network users can get access to relevant tools to manage its entry and exit flows to meet the requirements from the balancing rules and that information is available to them to efficiently deploy these tools. In the same sense it is important to both TSO and network users in general that each network user has appropriate incentives to balance its own portfolio. This is what ENTSOG sees as the main problem identified in the section titled “Network users need access to relevant information, flexible gas and network capacity”. ENTSOG agrees that this is an important issue to be addressed in both framework guideline and network code.

Under “Balancing zones and market fragmentation” it is acknowledged that different transmission networks have different physical capabilities, which in turn have contributed to different balancing rules. From this it is concluded that the European market is highly fragmented. Some evidence of price convergence however already exists in some parts of Europe, although it may well be that greater potential for improved internal energy market functioning exists through evolution of the balancing regime and better access to capacity. The objective should be to integrate markets wherever possible via a combination of balancing and capacity access rules that do not otherwise distort other objectives (e.g. the aspiration for network users to signal longer term requirements for capacity through longer term financial commitments, cost reflective entry/exit tariffs, avoiding cross-subsidisation between network users). This way TSOs can contribute to the “overarching objective of the network code” and “encourage and facilitate gas trade across systems and support the development of competition within the EU, both between Member States and within each Member State”.

In addition, the European single market aspiration implies a concept of optimization over all networks. It may be that some inefficiency in a regime considered in isolation might yield wider benefits because, for example, the simple daily balancing environment enhances cross-border trade yielding a wider European benefit. This concept raises the vexed issue of having a sub-optimal local approach for the wider benefit and how costs might be fairly attributed. It would be helpful if the conclusions of the framework guideline could indicate whether we are to seek to optimise balancing of individual systems or to provide guidance as to how wider benefits should be taken into account.

Imbalance charges should give an appropriate incentive on network users to balance their portfolios. In chapter 2 of the IIA it is argued, under “Calculation of imbalance charges”, that current imbalance charges do not provide this incentive and the charges can present a barrier to entry. ENTSOG believes that imbalance charges should reflect the value of the gas associated with resolving imbalances while at the same time provide network users with an appropriate incentive to balance its portfolio and agrees that this is an issue to be tackled within the scope of the framework guideline and network code development. Concept is easy but the attribution of costs may be challenging given that costs may be generated by system users during the settlement period but that different users (if any) may have imbalances at the end of the day.

Thus in addition to imbalance charges, which are defined as a financial settlement between TSO and network user of end of day energy imbalance, there will be a need for other balancing charges relating to within day delivery of physical gas at specific locations and/or hours. These within day rate changes will be a necessary tool to operate most of the European transmission networks and there will be a need of financial incentives to deliver these rate changes. Within a market based regime ENTSOG thinks physical and temporal products for within-day delivery could be developed and depending on the design to address these requirements either or both of the network user and the TSO could then procure these through market based mechanisms, with financial incentives to provide proper and sufficient incentives to network users to deliver. The incentives are critical for the design of the balancing regime and there is a complex interaction between these incentives and the end of day imbalance charges. Clear and objective guidance on the development of these physical

products, the interrelation with imbalance charges and TSO neutrality are welcomed to inform network code development.

ENTSOG agrees to the observation made under “TSO procurement of balancing services” that the way the TSO procures gas to balance the system is relevant to how imbalance charges are calculated, for the overall balancing costs and that it can influence gas market liquidity. Where the TSO has contracted balancing services, long term contracts with storage operators or other providers of flexibility, the TSO should release to the market on a short term (daily) basis that part of its title to flexibility that it does not need, creating more liquidity in the wholesale market. Liquidity and confidence in the wholesale market need to develop so that progressively greater reliance and efficiency can be delivered by the wholesale market. It is therefore essential that the regime evolves to provide the right incentives (on both TSO and network users) to foster a competitive wholesale market and allow TSO tools to ensure system integrity. TSOs cannot artificially create liquidity in the market but will look for ways to encourage the wholesale market by releasing surplus flexibility and to start to participate in wholesale market provided that any resulting additional costs are covered.

One priority should be to introduce market based balancing concepts that allow market players to deliver flexibility cross-border to converge prices and in that way integrate markets. ENTSOG notes the risk that although larger zones might increase liquidity this may detract from physical system operational efficiency and prevent market based solutions on handling situations of physical congestion. Where physical products for within day delivery of rate changes (locational and/or temporal gas) are designed care should be taken that these product can also be delivered from neighbouring transmission systems.

## **1.2 Relation with other areas**

Balancing has a strong relation with other areas including CAM/CMP, tariff, interoperability, market organization, transparency. It is therefore essential that we have a clear articulation of the interactions between the areas to ensure that when the balancing code is delivered it complements any preceding codes (perhaps CAM) so that it is capable of proceeding to comitology without any gaps and/or inconsistencies that would render implementation impossible.

With the increase of intermittent power generation and gas-fired power as a back-up, the power market can have a significant impact on the functioning of any balancing regime. This possible impact must be taken in consideration when designing the network code.

## **1.3 Target model**

The primary objective of the framework guideline is to set out clear and objective principles guiding the development of the network code. A target model, which in itself does not provide these principles, is welcomed as being useful in addition to these principles as an explanation on how the principles could be applied and what the impact of them would be.

The framework guideline seeks to define a common but optimal target model for Europe. Implementation in each system may therefore give rise to some variation. For example the target model, as described in the draft framework guideline, aims for a simple daily commoditised balancing regime with financial settlement of network user's end-of-day imbalance position and TSO procuring flexible gas in the wholesale market to address situations where aggregated imbalances (either forecast or actual) cannot be accommodated on the system as part of TSO balancing. In addition to this end of day rule some additional intra-day balancing rules are required, as it is unlikely that the TSO will be able to provide the required off take profile with any input profile; genuine system needs will continue to impose locational and temporal requirements in many systems. Some of these within-day requirements can be met by the TSO trading in the market for end-of-day products, other requirements could be met by designing appropriate locational and/or temporal products, where gas is bought or sold for delivery at a specific location (entry/exit point) and/or during a specific period within the day. Where these locational/temporal products are not feasible the TSO might need to use balancing services, such as storage contracts, for meeting physical constraints. Transmission networks and the flexibility available to them differ from one network to the other. This means that also the physical and temporal requirements will differ in each system. It may be that in some systems the requirements for these locational/temporal products are small and infrequent and so it may be efficient to give the responsibility to the TSO to manage them, using market based mechanisms wherever possible. However where requirements are large and frequent then it might be better to devise rules that devolve a greater responsibility to the network users (where market efficiency benefits exceed additional costs of complexity in the regime) to address within-day constraints, where necessary.

Where TSOs can they should be incentivised to use the same market for end of day products that system users will use for their portfolio balancing. The extent to which the TSO will rely on locational and temporal products will differ from one system to the other and will depend on the extent to which the combination of portfolio and other balancing rules (as they apply to network users) ensure flows within the acceptable operational envelope. This again will have an impact on the liquidity and organization of the wholesale market and the possible introduction of a balancing platform as well as on the need for and type of balancing services, e.g. storage contracts, needed by the TSO to maintain system integrity.

ENTSOG thinks that such a model is feasible when local circumstances can be taken into account. The framework guideline should be explicit about the principles to be used to design the balancing rules that define the intra-day responsibilities of network users and TSO and the conditions for when markets (i.e. access to wholesale markets) rather than mechanisms (TSO use of balancing platforms), balancing services or intra-day constraints should be sought.

In general network users must act in a way not to prejudice safe and secure operation of the network. Regardless of how carefully any balancing regime is designed the risk remains that the commercial rules will not properly address all possible circumstances and therefore some curb on commercial response maybe helpful and should somehow be reflected in either the regulatory or contractual framework.

#### **1.4 Roles, responsibilities and balancing costs**

In the target model network users have the financial obligation for an end of day balance between flow into and flow out of their portfolio; the TSO has the residual role of managing the aggregate end of day position. For this the TSO will buy or sell gas in the wholesale market. Relevant network users will be financially settled for their net long/short positions through the imbalance charge as defined in the draft framework guideline. Another part of TSO's residual role is to provide for flexibility where/when network users do not comply with the balancing rules on within day constraints. To the extent possible the costs for these balancing actions by the TSO should be targeted to the relevant network users through a balancing charge additional to the imbalance charge, which is defined as the financial settlement of network user's end of day position.

Genuine system needs and the design of the balancing rules may require the TSO to trade locational/temporal products or procure balancing services to meet locational/temporal requirement that are unrelated to network users being out of balance or complying with intra-day restrictions on network user's entry and exit flows. The costs for these system balancing actions cannot be targeted to individual network users and will have to be recovered through other mechanisms than the imbalance charge.

The draft framework guideline does not provide any principles on the recovery of these additional costs, neither the residual balancing costs nor the costs for system balancing actions. Discussion between ERGEG and ENTSG on these principles is necessary before the framework guideline can be finalized.

#### **1.5 Costs of implementation**

Respondents are asked to give an indication of the costs of implementing the target model. It is difficult to answer such a question. The network code will have impact on flexibility contracts, investments in physical infrastructure, IT (including data exchange with system users, connected and downstream operators). It may also require major metering and Scada system development to meet the requirements of market players and the TSOs' information and system control processes.

In this phase of the project it is too early to give accurate cost estimates but some member's experience of balancing regime developments suggests that the costs could run to many tens of millions of Euros.

This may well be good value for European consumers particularly if genuine competition in wholesale and retail markets can be underpinned by the operation of the new regime. The Initial Impact Assessment conclusions should include sufficient justification for the major policy choices made in the proposal.

Evolution of the balancing regime is likely to create costs for all players both in respect of any final model or interim steps. In a competitive market efficient players will be able to pass on those costs

to consumers. This should be the case for TSOs and assurance is sought in this respect from ERGEG on behalf of the NRAs.

Early agreement about the remuneration of TSO costs will encourage TSOs to facilitate the necessary changes in their systems, operations and market facing processes in a timely manner.

## **1.6 Transition**

Different interim steps might be necessary for different systems; systems are developed based on different upstream and downstream considerations, different histories and different design criteria and evolution towards market based rules should be expected to include different sequences of steps across the systems across Europe. This has to be reflected in the interim steps towards the target model. To identify and implement appropriate interim steps will contribute to a successful transition to market based balancing rules.

The target model envisages the TSO to trade either in the wholesale market or on a balancing platform to meet locational and/or temporal requirement, an important function of a transitional period is for both the TSO and network users to adapt to this new way of balancing. For the TSO it is important to experience under what circumstances the use of balancing services and/or intra-day restrictions can be replaced by trading locational/temporal products and under what circumstances locational/temporal requirements can be met by trading end of day products. An optimum and sufficient confidence to this will require iterations, where typically each iteration will require a gas year to have a good coverage of all possible flow scenarios.

Transition towards the target model will involve a series of steps, steps that have to be defined. Which steps have to be taken may vary from system to system, depending on physical properties of the transmission network, the local circumstances and the status of the development of traded markets.

## **2 Specific feedback by proposed framework guideline headings**

### **2.1 Scope**

The framework guideline includes rules on residual balancing by TSO. It is not clear whether it also includes system balancing. ENTSOG understands some NRAs consider system balancing outside the scope of framework guideline. ENTSOG would value confirmation that at least all temporal and locational requirements for gas (whether they be defined as residual or system balancing) as a consequence of individual regime definition are addressed as part of the framework guidelines/network code.

ENTSOG considers nomination rules and procedures are to be an important part of balancing regimes; nominations are the basis for system users to communicate intended physical gas flows to TSOs. Therefore this information is essential to the TSO enabling it to make accurate demand and supply forecasts and provide necessary input to operation of the transmission system.



Furthermore the re-nomination rules define the opportunity for system users to respond to demand changes, supply unavailability and to other commercial opportunities. Thus the re-nomination rules define the system users opportunity to manage risks and opportunities arising from the operation of the balancing regime and dynamics and volatility of the gas market.

The scope of balancing is limited to the process up to and including financial settlement at the end of the balancing period. Any changes in allocated flows after the imbalance charge have been determined – for example as a result of metering errors or allocation based on actual meter readings within downstream distribution systems- will be considered outside the scope of balancing and part of a separate reconciliation process.

#### 2.1.1 Applicability

The framework guideline should give clear guidance on network code development. Implementation times would be a matter for the comitology process although ENTSOG would envisage that its network code development work should establish credible implementation timelines to inform Commission's recommendations. Differential implementation schedules may be appropriate on a geographical basis depending on local circumstances, particularly in the context of transitional steps.

Market based balancing rules can only apply under normal conditions. Proximate to an emergency, balancing rules may have to be suspended and the TSO should be allowed to use direct access to flex to ensure the integrity of the system. This is strongly related to the Security of Supply regulation.

## 2.2 Definitions

It is important to have clear and consistent definitions of key terminology used in the framework guideline create a common understanding of some of the central concepts in balancing. Some definitions are copied from the regulation; others are not, although the terms are used in the framework guideline. This raises some confusion. New definitions are not always clear and need some effort before they can give clear guidance. Small changes in a definition can have serious impact on the interpretation of the target model.

An example of this is the very broad definition of 'TSO Balancing', which includes both residual and system balancing. The definition touches on the scope of the framework guideline. As discussed under section '1.3 Target model', ENTSOG believes that a distinction between residual balancing and system balancing is useful in the discussion on balancing costs and on how to target these costs to network users.

ENTSOG recommends some joint sessions with the regulators to work through the definitions and major elements of the framework guideline proposal prior to ERGEG's finalisation of the framework guideline. This will be essential to minimise the risk of inconsistencies and misunderstandings in the finalised framework guideline.

### **2.3 Purpose and policy objectives**

The purpose of the network code is to give a set of market based balancing rules that when implemented by all TSO will provide for a high level of harmonization of balancing rules throughout Europe.

ENTSOG supports the aspiration to deliver market based balancing. The following define the key principles that ENTSOG believe should inform the balancing regime design.

- Use of markets wherever possible by devolving responsibility to market actors rather than leaving responsibility in monopoly.
- Seek to encourage wholesale market using hubs wherever market enables competition involving multiple buyers/sellers
- financial responsibility for balancing devolved to system users wherever it is practical and efficient to do so ; incentives adequate to ensure commercial behaviours aligned with ensuring physical flows leaving an acceptably small role with TSOs
- Where this is not practical, for example for system balancing actions (where TSO has particular requirements for gas flow management that are not sufficiently reflected in the commercial regime) then it may be that, whenever possible, other market based procurement (access to balancing platforms, tender processes) should be used by the TSO to secure balancing services.

The framework guideline proposal involves fundamental changes in many parts of Europe. There is a need to establish confidence in markets. Therefore, a stepwise approach in embryonic markets may be essential. Whilst TSOs will remain responsible for the maintenance of system integrity the transition to market based balancing will affect distributions of opportunities and risks, the implications of which will need to be carefully considered particularly during the transition period to ensure orderly and progressive regime evolution as markets, and confidence, develop.

Wherever and whenever possible, TSOs should transact in the wholesale market. The wholesale market should enable access to physical products although the TSO may also require direct access to physical tools through the procurement of balancing services. This is particularly true during transition, but also in some systems for some circumstances the TSO may always need balancing services that provide it with direct access to physical tools, motivated from genuine system needs and evaluation of the other sources of gas flexibility available to it.

### **2.4 TSO information provision obligation**

The fundamental principle should be that all actors should have appropriate information to manage their individual risks and opportunities and therefore information provision needs to be considered in parallel to the development of the wider balancing rules. It is an integral part of the regime and cannot be considered in isolation.

Network users need info on their position before, during and after the commercial balancing period. Both TSOs and network users may need additional info e.g. on expected supplies and demands



available to all players. For the TSO, access to this information will become more important as it seeks to utilise short term market based mechanisms to procure its local and temporal flexibility needs.

TSO has access to part of the information that network users need to efficiently balance their portfolio and potentially wider balancing risks and opportunities. TSO could act as an information broker, gathering info, combining it with its own information and then distributing it to market as balancing and forecast information. If TSO is to act in this broker role it will depend on third parties to provide additional info not already available to the TSO. One important party in this will be the DSOs. In general DSOs are responsible for allocating flows on TSO-DSO interconnection points to the different network users having title to the gas flowing over these points. Only in close cooperation with these third parties can the TSO provide forecast information to include network user specific forecasts of exit flows to downstream systems and include allocations to downstream systems in network user's imbalance position. This will improve the quality of the information to network users for taking efficient portfolio balancing actions. For example the TSO can complement its own forecast information with network user specific forecasts of exit flows to downstream systems and allocations to downstream systems thereby enhancing system users' ability to manage their imbalance cash out exposures.

The absence of robust information to system users before and during the settlement period might inform transitional steps towards the target model. This may impact the split of responsibilities between system users and TSOs. For example system users might be expected to manage their gas accounts against a pre-determined demand forecast for part of their portfolio (perhaps downstream domestic load). TSOs might then be responsible for managing the difference between the forecast and actual demand. Under this circumstance the TSO should be held financially neutral for this activity with any costs being apportioned to system users.

ENTSOG will start a project within the next few months to investigate the DSO interface and to establish what is possible to inform the network code formulation.

It is important to emphasize:

- Support of other actors (particularly DSOs) will be essential, including regulatory support if timely progress is to be made
- the possible costs, for the TSO, related to information provision (IT developments) especially at the TSO-DSO interface (where DSOs might also face additional costs),
- information costs and any other costs (e.g. balancing costs associated with managing downstream demand uncertainty) will need to be addressed either in the context of balancing financial neutrality or via some other vehicle
- the necessity to perform cost/benefit analysis for the market (probably on a national basis) before imposing high impact information provisions.

When and where markets are not (yet) sufficiently liquid the risk of providing the market with information on linepack levels or aggregate imbalances is that the TSO could be faced with price spikes when taking balancing actions, which will result in increased balancing costs for network users. Here there is an important role for the NRAs. When the NRA sees that the market is dominated by one or more network users it could decide to exempt the TSO from the obligation to publish linepack levels or information on the aggregate imbalance position of all network users.

## **2.5 Network users and TSO Roles & responsibilities**

It is of fundamental importance that clear roles and responsibilities are defined for network users and TSOs. Currently the roles and responsibilities are not sufficiently clear to provide the necessary guidance to enable network code delivery. Some of the identified principles and objectives even look contradictory e.g. simple commoditised daily balancing concept and minimising the TSO's balancing role are unlikely to be consistent objectives in many systems.

ENTSOG notes the objective of the framework guideline to reduce the TSO's role as far as possible. The balancing framework guideline should have the principle of market based balancing at its core. Balancing rules that foster competitive pressures between network users should be preferred over approaches that leave a monopoly function with the TSO whenever the cost of complexity of the rules does not exceed the benefit arising from the competitive elements associated with multi-player procurement and deployment of flexibility.

The framework guideline promotes a simple daily balancing concept with an opportunity to define "within day constraints" regime to introduce more complicated rules for network users to address within balancing period issues. Should a simple commoditised daily balancing regime be implemented then many systems will require additional actions to ensure that physical input and offtake flows remain within acceptable operational envelopes. A key challenge is to determine efficient outcomes. Criteria to define the extent to which these responsibilities are split between network users and TSOs would be helpful together with a clearer definition of what options might be used to implement "within day constraints" for network users.

The objective of reducing the role of the TSO may be in contradiction with the objective to merge balancing zones; larger balancing zones will put the responsibility to determine flows between neighbouring transmission systems on the TSO instead of on the network users and may increase the requirement for locational balancing actions by the TSO.

In some systems the conditions for a liquid wholesale market to develop are limited. In some of these cases the system is adjacent to a system in which a liquid wholesale market is or can be developed. In these cases the TSO could, in cooperation with the neighbouring TSO, look for mechanisms that allow its network users easy access to the liquid market in the neighbouring system.

### 2.5.1 Linepack, tolerance and within-day constraints

All three of these concepts are inexplicably linked.

ENTSOG notes that linepack is considered to be the amount of gas in the system at any point of time. The level of linepack will vary partly as a function of the difference between inputs onto, and offtakes from, a system. It is therefore the linepack that can vary within the acceptable operational envelope of the system.

Tolerances can be used to protect system users from imbalance cash-out. Thus in a daily cash-out regime tolerances could be used to allow some carry-over of imbalances from one day to the next. However such an approach might undermine the daily balancing regime and particularly the desire to encourage trading to boost liquidity of short term gas trading.

Whilst “within-day constraints” is not defined explicitly in the draft framework code it appears that 6.4 implies that NRAs could impose some form of within day cash-out. It is not clear to ENTSOG that this is the only way to manage the issue.

ENTSOG’s view is that, where it is practical and economically reasonable, the balancing rules applicable to system users (which may comprise portfolio balancing and cash-out arrangements plus other rules (possibly with financial incentives) shall aim to ensure flows within the acceptable operational envelope of the system.

The inter-relationship between linepack, tolerance and “within-day constraints” is complicated. For example a significant release of tolerance may create situations where TSOs need to take corrective actions where system users use tolerances (which might be offered in respect of within-day or end of day services) in a way that otherwise cannot be accommodated on the system.

ENTSOG advocates that it meet with ERGEG during the period up to finalisation of the framework guideline to gain a better understanding of ERGEG’s thinking, and if possible, to provide further ENTSOG input to inform ERGEG’s final recommendations.

### 2.5.2 Nomination procedures

For operational planning TSOs need reliable, timely and accurate information on expected flows. Nominations have always been a tool for obtaining this information. Where TSOs have to procure gas through market based mechanisms the need for high quality planning information will become even more important for the TSO.

Nominations must be part of the network code on Balancing and therefore a review of nomination procedures is necessary and should start soon to enable timely completion of the network code.

ENTSOG requests interaction with ERGEG after the consultation closes to ensure that the roles and responsibilities are clear and their implications are well understood.

## 2.6 Balancing periods

The framework guideline clearly promotes an end-of-day settlement of imbalances. Whilst this may confer a benefit to wholesale market trading it needs to be considered in the broader context of market based aspiration and the local optimisation issue.

In general intra-day flexibility will be needed to operate the system in a safe and secure manner and keep it within safe operational parameters. To reduce the role of the TSO in balancing activities a set of intra-day constraints applicable to network users, or a sub-set thereof, may be necessary to keep some systems within accepted operational limits. This is related to the roles and responsibilities, the scope of the framework guideline and network code and intra-day constraints and use of tolerances.

In relation to gas-day harmonisation, it may be necessary to consider that in some countries, depending on whether or not 'within-day constraints' apply then the synchronization of the electricity-day / gas-day may be more important than the synchronization with adjacent TSO.

## 2.7 Imbalance settlement

The main question here is how to determine cost-reflective "market-based" prices for financial settlement of end of day energy imbalances between network user and TSO. A target could be supported of cash-out prices based on marginal prices traded by the TSO, but allowing for the possibility of having an additional uplift (or reduction) where the marginal prices fail to provide sufficient incentive on shippers to balance.

However the operation of the balancing regime will depend on far more than the end-of-day balancing incentives provided to system users. For example, where part of the responsibility for locational and temporal requirements is left with the TSO and TSO is procuring rate changes through market based mechanisms, the rules must provide that the actions deliver the required flow changes. A supplementary question is then whether the prices of any locational or temporal actions should contribute to cash-out price formation. Thus the issues of ensuring delivery of physical products and end-of-day cash-out incentives might be inextricably linked.

At the moment, looking at the different options still left open and inconsistencies in the Draft framework Guideline, it is difficult to understand all complexity associated with this interaction. Further discussion between ERGEG and ENTSG on this topic is necessary before the framework guideline can be finalized.

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

ENTSG notes the aspiration that the wholesale market should provide system users with a tool with which to manage their imbalance exposures and which TSOs should seek to participate in same markets for residual balancing to assist price discovery and to contribute to short term price formation and cash-out price determination.

However the linkage between some wholesale market transactions (particularly end-of-day title transfers at virtual points) and physical flows will not be precise. Therefore TSOs may require access to balancing platforms to secure physical flow management, typically for locational and temporal reasons.

In some cases, TSOs might require some direct access to physical flexibility tools, particularly in the transition period, where no liquid wholesale markets or balancing platform is available or can reasonably be created. In other cases, where liquidly traded wholesale markets and/or balancing platforms do evolve, these markets may be subject to conditions under which liquidity is temporarily limited and the TSO would need balancing services that give direct access to physical flexibility tools as a backup. In these cases, TSOs shall have access to physical balancing services that might be delivered via a balancing platform, periodic tenders or long term flexibility contracts.

The transition to market based approaches (particularly with preference for shorter term procurement to provide clear price signals) must establish confidence in the new arrangements.

TSOs have traditionally held long term gas flexibility services and could progressively reduce such service usage where system users assume a greater role and TSOs increase reliance on balancing platforms and/or wholesale market. To increase liquidity TSOs should progressively reduce their dependence on long term flexibility contracts, releasing any surplus flexibility to the market and therefore increase liquidity of the market. This in turn would promote a greater role of network users to deploy short term flexibility and increase TSOs' confidence and reliance on the wholesale market and/or balancing platforms.

The TSO's current balancing services might be used to offer some form of flexibility service into the market as a tool to enable system users to balance their portfolios. Service prices should be derived to encourage system users to balance their portfolios rather than to face cash-out exposures. Thus any interaction between service pricing and imbalance cash-out price determination will need careful consideration.

TSOs should be assured of recovery of the costs of residual and system balancing services held but with appropriate incentives to encourage market development.

Where the TSO trades locational and/or temporal product conditions should be in place to check on delivery of the traded contract. This will introduce some form of within-day restrictions on the network user that is counterparty to the TSO.

## **2.9 Cross border co-operation**

The framework guideline puts a strong focus on merging of balancing zones. European policy is focussed on integrating markets. Merging zones is a heavy tool to achieve this, one that has serious consequences that might turn out to be counterproductive in achieving a transparent internal market for energy. The underlying intuition of the framework guideline is that the market will balance more efficiently than a single monopoly agent. ENTOSOG proposes that the primary focus

should be to ensure access to capacity and balancing roles that enable the market to deploy cross-border flexibility as much as possible. A further need is to consider the roles market players have under very different system designs, which exist for good reasons, throughout Europe.

To ensure access to capacity and determine clear balancing roles will enable the market to deploy cross-border flexibility as much as possible and contribute to the integration of markets. Clear and objective principles are needed that clearly identify when markets are considered to be integrated. In analogy to the power sector one could think of the following criterion: two adjacent markets are considered integrated if arbitrage opportunities between both markets exist only during periods where there is a physical congestion between the two areas. Or, equivalently, if there is no physical congestion, then in that period there are no arbitrage opportunities. In a first step then it can be identified to what extent the harmonization of balancing mechanisms can contribute to a better integration of European gas markets. In a second step an evaluation of implicit auctions should assess the suitability of this instrument for achieving a convergence of price differentials. A potential merger of balancing zone shall be preceded by a thorough impact assessment which shall identify whether the incremental benefits compared to implicit auctions outweigh the costs of merging of balancing zones to duly motivate the decision on whether or not to merge the zones.

Especially on the topic of cross-border co-operation there are strong links with the work done in other areas. It is therefore essential that we have a clear articulation of the interactions between the areas to ensure that when the balancing code is delivered it complements any preceding codes (perhaps CAM) so that is capable of proceeding to comitology without any gaps and/or inconsistencies that would render implementation impossible.