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GTE comments on *ERGEG "Gas Balancing" Discussion Paper (18 July 2005)*

Executive summary

GTE welcomes the ERGEG consultation and agrees that well designed balancing regimes are essential to a safe, secure, effective and competitive market.

Due to market, technical, geographical and historical factors there are justifiable differences in the design and application of balancing regimes. Accordingly, TSOs operate their networks with system-tailored balancing actions and in a safe and economically efficient manner. GTE observes that:

- Standardisation of balancing systems across Europe would be mainly impracticable and might drive costs in excess of the benefits they would be supposed to produce. But where there are no technical or other legitimate constraints some harmonisation of balancing regimes potentially assists the development of a single European gas market. The benefits of this compared to the costs involved need to be carefully assessed.
- GTE notes that the purpose of balancing rules is to transport gas through the network, taking into account the physical constraints in the TSOs' networks, to maintain system integrity, and not to form artificial barriers to market liberalisation and cross-border trade.

GTE believes that in dealing with balancing regimes the following areas of concern warrant further investigation:

- *The responsibilities in gas balancing.* Each TSO should have the final responsibility to adopt and administer the balancing rules for its network, based on objective criteria and under the control of the relevant authority.
- *Linepack.* GTE members have concerns that direct and individual access to linepack could impede an efficient operation of the overall system, whilst making it more intricate.
- *The trading of imbalances on an ex-post basis*. GTE considers that "ex-post" trading does not lead to more efficient balancing regimes because it may reduce substantially the incentive for shippers to keep in balance and it may increase the risk of overall imbalance and the cost of balancing actions to be taken by the TSO.
- *Cross-border issues.* GTE considers that the theoretical concept of "cross-border balancing zones" would merely add complexity without adding relevant value. Nevertheless, GTE would like to further contribute to facilitating cross-border trade by identifying "convergence criteria" aimed at further compatibility between balancing regimes. Preliminary views on the development of convergence criteria are developed in chapter 2.
- *The way to address cost-neutrality.* GTE supports the re-allocating of penalties or collected cash-out to the market, thereby aiming at cost neutrality.

GTE is looking forward to a constructive public debate with all industry and market stakeholders.

GTE - Gas Transmission Europe - is focused on transmission related activities and represents the TSOs in 26 countries. GTE is one of the three columns of GIE - Gas Infrastructure Europe - the European association of the natural gas infrastructure industry, the other columns being GSE - Gas Storage Europe - and GLE - Gas LNG Europe.

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1. Main comments on the ERGEG discussion paper

GTE broadly agrees, with some comments and fine-tuning requests, on the substance of most proposed principles as illustrated in the ERGEG discussion paper. With respect to the *context* in which the balancing principles proposed by ERGEG should be applied and the *main objectives* they are expected to achieve GTE has the following remarks:

First, when discussing the design of balancing regimes, a clear distinction should be made between operational issues such as network balancing and economic goals such as market liberalisation or liquidity. Balancing systems based on principles of cost efficiency and safety improve competition and liquidity, considering that the best transparency and non-discriminatory practices in their management are in place. Nevertheless, this effect must be considered only as a by-product of the balancing systems. GTE is convinced that balancing rules must not be designed with the principal aim of promoting competition or market liquidity. However, GTE agrees that the balancing rules must take account of the economic and market mechanisms that may support the TSO in its role as residual balancer and should not unduly hamper competition, market participation and the entry of new participants into the market.

Second, the ERGEG consultation paper proposes the development of *Guidelines for Good Practice* on gas balancing principles and principles on linepack management. However, GTE remains to be convinced that further guidance on balancing rules, beyond the existing Guidelines for Good Practice and the Gas Regulation (2005), is required. GTE believes it is essential to identify the critical areas for network access and based on the results develop a road map for the next steps to be taken. GTE thinks that such process would enable stakeholders in providing timely their contributions. Naturally, GTE remains committed to contribute to these discussions.

Third, a clear distinction between short and long term goals is essential. The long-term objectives are key considering the responsibilities of the TSOs and the likely evolution of the European gas systems. It is generally accepted that the need for flexibility will grow dramatically over time, especially because of new CCGT plants coming into operation across Europe and the decrease of flexible gas production. Given the long term expected changes to the flexibility market, GTE believes that a forward looking approach should be adopted in designing balancing rules.

In relation to the proposed *ERGEG principles*, GTE has the following comments:

Responsibilities
(This is reflected in Principle #1 (Balancing Responsibilities)and in Principle #2 (General requirements for balancing rules)): TSOs are responsible for designing balancing rules and to act as residual balancers of their systems. It is the responsibility of shippers to balance their individual positions in terms of gas inputs and off-takes over the relevant balancing period.

It is a TSO responsibility, as residual balancer, to design the balancing rules based on objective criteria In adopting a balancing regime the TSO must take into account the physical conditions of the grid, the flexibility available to the TSO and the commercial model on which the balancing regimes are based. GTE agrees that a consultation process with the relevant market participants can be an important part of this process. Yet, there are core safety constraints that TSOs cannot negotiate with net-

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work users, and the final decisions will usually result from an agreement between the TSO and the national relevant authority. In this view, GTE believes that there should be room for the TSO to take into account the physical conditions of the grid in the agreed balancing system, the flexibility available to the TSO and the commercial model on which the balancing regimes are based. Of course, this approach automatically implies that it is up to the TSOs to administer and interpret the balancing rules. An appropriate system of incentives would minimise the role of TSOs as residual balancers.

The ability of both TSOs and shippers to fulfil their responsibilities depends largely on the availability of flexibility services. The TSOs are not responsible for many of these flexibility tools either in terms of the daily operations and/or for the planning of their developments to meet future needs.

Linepack

(This is reflected in Principle #8 (Provisions of flexibility)): GTE believes that the principle regarding the provision of linepack should be part of a different context where roles, responsibilities and instruments for developing flexibility tools on a forward-looking perspective are discussed. As far as balancing systems are concerned, it is not the task of a TSO to provide for flexibility beyond the means available to the TSO. The GTE position is that in general the provision of flexibility tools is a competitive activity and as such should be left to the market to develop.

More specifically, linepack is an essential tool for the TSO and it represents a key factor for system integrity. It should be managed in an efficient way and in this view GTE recognises that if a TSO has linepack in excess of that required for residual balancing purposes, it might be appropriate to offer this to the market. However, GTE opines that a critical aspect of such an offering would be the ability to set the level of linepack that could be made commercially available against the minimum that is required by the TSO to operate the network system in a safe and secure manner. The situation is further complicated by the fact that the availability of linepack can be highly dependent on weather conditions as well as demand side factors (e.g. power plants). Moreover, linepack is a scarce resource that is much more valuable for the shippers if accessed jointly than if booked separately. The TSO is in the best position to optimise linepack by aggregating the need of the shippers and by offering it through characteristics of its balancing system (balancing period, flexibility services, capacity, etc.).

GTE would seek further clarification from ERGEG on their views in respect of the definition and interaction of principles 5 (tolerance services) and 8 (flexibility).

Trading of Imbalances

(This is reflected in Principle #4c (trading of imbalances positions)): GTE promotes the possibility for shippers to pool together their imbalances on an "ex-ante" basis by allowing them to trade gas for balancing purpose on an ex-ante basis and by pooling inputs and off-takes per portfolio, per balancing zone, per contract, per shipper etc. However, GTE considers that "ex-post" trading does not lead to a more efficient balancing regime. Moreover, it may delay the development of within-day markets, it may reduce substantially the incentive for shippers to keep in balance and it may increase the risk of overall imbalance and the cost of balancing actions to be taken by the TSO.

In fact, a shipper's imbalance position that has the opposite sign with respect to the overall system imbalance cannot be assumed to improve the balancing of the system as a whole, as that imbalance position could have sent a wrong signal to the TSO, and induced it to undertake unnecessary and

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costly balancing actions. Additionally, shippers are likely to react in the same way to short-term changes in gas prices; consequently, the balancing actions of all shippers tend to go in the same direction. For these reasons, GTE does not believe that TSOs should facilitate ex-post trading of imbalances, not even as an "interim measure".

Cross-border balancing zones

(This is reflected in Principle #7 (Harmonisation of balancing rules)): Balancing rules must consider the physical constraints in order to maintain system integrity, and these rules are not adopted to form undue or artificial barriers. GTE agrees that TSOs should continue their efforts to ensure compatibility of balancing regimes and is committed to enhance cross-border gas flows by promoting the wide development of standardised Interconnection Agreements, in particular OBAs. OBAs support shippers in exchanging quantities between balancing regimes efficiently. However, GTE considers that the theoretical concept of "cross-border balancing zones" would merely add complexity without actually improving the compatibility or consistency between systems.

Cost Neutrality

(This is reflected in Principle #4b (Charges for imbalances)): With respect to the charges for imbalances, it is important that both shippers and TSOs face real incentives in the decisions related to balancing as this should lead to a least cost outcome. In coherence with principle #1 it is also important that shippers face individual incentives that are strong enough in order to balance their individual position instead of taking the risk to face high imbalance charges. This will lead to an overall balanced position of the system. GTE supports the re-allocation of balancing incentives to the market, thereby aiming at cost neutrality of imbalance charges.

2. GTE initial views on criteria for convergence

As set out earlier in this document, there are justifiable differences between balancing regimes, due to market, technical, geographical and historical factors. For example, according to the different physical features of each network, the TSOs have their own system-tailored balancing actions based on the flexibility means available to their network and managed in order to operate the transport system in a safe and economically efficient manner. Applying the same rules everywhere in Europe would therefore be impracticable and uneconomic. However, GTE would like to further contribute to facilitating cross-border trade by identifying "convergence criteria" aimed at further compatibility between balancing regimes. GTE's preliminary view on such convergence criteria is that they will not lead to uniform balancing regimes as indicated above. The convergence criteria aim at facilitating cross-border gas flows. A first step in gaining a better understanding of the impact of differences on cross-border transportation may be taken by examining the contribution of aspects such as:

- Information provision to the market;
- Re-nominating possibilities for shippers;
- Development of a common template for imbalance charging, taking into account the need for incentives for both shippers and TSOs;
- Market based mechanisms for balancing services;
- OBAs at cross-border points and the ongoing work within EASEE-gas.

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3. Answers to the questions

The GTE response to the questions put forward in the ERGEG paper is given below.

Question (1):
Are there other features that should be reflected in a gas balancing regime to help ensure efficiency and to maintain safety and security of the system?
In view of the GTE comments above, feature no.10 (on ex-post trading of imbalances) should be removed. With regard to the provision of linepack in feature no.8, GTE believes that a forward looking approach should be adopted. In such an approach the issue should discussed in a wider debate on roles, responsibilities and instruments for developing flexibility tools. With regard to feature no. 9 GTE notes that where tolerance services are available for free or included in the capacity offer, the trading of these services may lead to the build-up of excessive linepack; as a result the TSO may have to take (otherwise unnecessary) actions to reduce system pressure. Moreover, GTE suggests the inclusion of the following features:

- The balancing regime should comply with the physical properties of the transmission system.
- The shipper is responsible for acquiring flexibility beyond that available from the balancing regime

Question (2):
Should the incentives to balance become stronger the further away a shipper is from being in balance or are there other ways of ensuring that shippers have appropriate incentives to minimise their imbalance positions? Should shippers be allowed to trade their imbalance positions on an ex-post basis as a way of improving overall efficiency?
The incentives for shippers to balance should be strong enough to induce them to take corrective actions within the balancing period and to remain in balance until the end of the balancing period. If they were cashed out at a lower charge than they impose on the system, there would be many circumstances in which they would choose not to be balanced because of the transaction costs related to balancing actions to be undertaken before the end of the balancing period. Where a liquid market for balancing exists, the market-based nature of the cash-out price determination is influenced by the size of the overall shipper imbalance, thus offering sufficient incentives for shippers to achieve acceptable imbalance positions.

Where there is not yet a liquid market for balancing, the balancing charges should be based on a methodology agreed with the national regulatory authority. This methodology may take into account the need to let imbalance charges reflect the actual size of the imbalance. For instance, an additional incentive could be given to shippers where the additional incentive should be high enough to overcome transaction cost considerations. Also, and within reasonable limits it may be justified to penalise unbalanced shippers above the cost they impose on the system by not being in balance.
With respect to the issue of ex-post trading of imbalances, GTE believes that this does not increase the overall efficiency. On the contrary, it may tend to relax the shipper's behaviour in providing correct nominations and may lead the TSO to undertake unnecessary, or worse, costly balancing actions.

With respect to incentives for the TSO, GTE believes that economic incentives in respect of residual balancing may be designed so as to align its interests to those of shippers (the incentive is higher the more TSOs help shippers to balance themselves), taking into account the safe and economic operation of the system as a whole.

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Question (3):

Does hourly balancing create any barriers to the development of competition?

An hourly balancing regime applied on a transparent and non-discriminatory basis is not a barrier to the development of competition. It could also lead to lower costs for shippers, as clear responsibilities and less cross subsidisation between shippers allow the TSO to offer more transport capacity to the market. Hourly balancing has to be supported by an adequate operational and commercial framework. It is of crucial importance that the metering infrastructure has to be consistent with the balancing period. For example, an hourly balancing regime requires well-developed ICT and metering systems to allow market participants to manage their position over a shorter period of time. In cases where the TSO has to adapt metering and meter-reading activities - including necessary investments - in order to meet the standards required by the adopted balancing period, an appropriate return on the investments is essential.

Question (4):

What information is required to ensure that gas-balancing regimes operate effectively and efficiently and how often should this be provided? What is the best way of ensuring that this information is provided to all parties on a non-discriminatory basis?

Appropriate information should be made available to shippers in order to enable them to assess their individual balancing position with respect to the requirements of the balancing regime and to enable them to take corrective action. The frequency of the provision of information required by shippers for taking timely corrective actions is determined by the characteristics of the applicable balancing regime. Ideally, the content of such information should allow the shipper to have a clear understanding of their individual balance position. This means that shippers should have relevant information on their flows at their entry and exit points of the network. The information and adequacy of the system required for the provision of information should be determined in an economically efficient way, taking into account the specific situation in the different member states. GTE notes that the TSO may not always have all necessary information at its disposal.

Question (5):

Should linepack (where technically feasible) be made available to shippers on a non-discriminatory basis to improve access to flexibility? Are there any other steps that could be taken to improve access to flexibility that would not impinge on the safety and security of the system?

GTE members have concerns that direct and individual access to linepack would impede an efficient and safe operation of the overall system, while making it more intricate. Linepack is a scarce flexibility resource that is used by the TSO for effectively managing the system balancing, so it cannot be released to market participants as an additional flexibility tool. Where a TSO thinks it can safely make some linepack available to shippers, a critical aspect of such an offering must be the ability to set the level of linepack that could be made commercially available against the minimum that would be required by the TSO to operate the network system in a secure manner. The situation is further complicated by the fact that the availability of linepack can be highly dependent on weather conditions as well as demand side factors (e.g. power plants).

Question (6):

Do differences between (neighbouring) gas balancing regimes distort or the incentives provided to market participants? If so, what degree of consistency would be appropriate to over-

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come these problems? Would there be any disadvantages from introducing more consistency in features of (neighbouring) gas balancing regimes? How could this consistency be facilitated – for example would legislation be required or could it be achieved through better co-operation between regulators and TSOs in different Member States?

Differences between (neighbouring) gas balancing regimes do not necessarily distort the incentives, provided the balancing rules in neighbouring gas balancing regimes are built on objective criteria and shippers ultimately face the real balancing costs in both systems. If those costs were revealed by market-based mechanisms such as balancing markets shippers could have the possibility to make the most efficient choice in terms of cost minimization of balancing actions. However, if balancing charges are set at an artificially low/high level compared to the efficient levels in one of the neighbouring regimes then shippers would tend to bring their deemed imbalance to the less costly regime. In this manner, the artificially low/high levels of balancing charges would lead to overall (uneconomic) responses.

Question (7):

Would cross-border (or international) balancing zones help facilitate the development of competition in gas across Europe? What technical, legal and practical issues would need to be overcome if cross-border balancing zones were introduced? What impact could cross border balancing zones have on the development of hub based trading and regional markets (see for example the recent ERGEG document on regional markets in electricity)?

Cross border balancing zones would in GTE's view lead to a higher degree of complexity to shippers and TSOs and generate higher costs without actually improving the compatibility or consistency between systems.

Question (8):

Would it be appropriate to increase the level of consistency between balancing rules for transit and transportation systems?

Differences between balancing regimes for transit and transport for the domestic market are based on differences in the underlying characteristics of transit contracts which are typically based on steady flows with high load factors and predictable quantities compared to transport for domestic markets with lower load factors and less predictable demand. These differences of market requirements are reflected in the differences of balancing regimes. As indicated under question 6, imposing artificial levels of consistency will lead to uneconomic results.

Question (9):

Would the introduction of Operational Balancing Agreements (OBAs) between transit and transportation systems improve transparency on how the balancing regimes interact? If so, what should be included in the OBAs?

OBAs or Shipper Balancing Agreements (SBAs) support shippers in exchanging quantities between balancing regimes efficiently and are currently in place at most European cross-border points. The main purpose of an OBA is to allocate to shippers exactly the quantities they nominated and have made available, taking into account the fact that quantities may be re-nominated with a lead-time of two hours (see the Common Business Practice of EASEE-gas). An OBA is an appropriate instrument to improve transparency to shippers. Usually, the OBA is applied in the same way for transit and transportation.

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ANNEX I

Survey of the balancing practices currently adopted by the various TSOs across Europe

3.1 Balancing Period: daily / hourly

- A daily balancing period is used in most European countries. However, often hourly tolerance levels are established within a daily regime, which may require hourly balancing actions from the shippers;
- It should be noted that some TSOs are using two different balancing regimes for transit and national/regional transmission.

3.2 Tolerance levels

- Most of the TSOs are offering certain tolerance levels within the regular transmission tariffs and approximately half of these companies are offering extra tolerances with additional charge.

3.3 Imbalance charges

- There are broadly two different methods used by TSOs to compute imbalance positions: the imbalance is the difference between Nomination and Allocation data or the difference between Entry Allocation and Exit Allocation data.
- Most of the TSOs are using either the first or the second method and some are using both methods.
- Most of the TSOs are using energy as unit for imbalances.

3.4 Incentives

- There are broadly two types of incentives applied to shippers: cash-out incentives, i.e. gas is sold to or bought from the shipper by the TSO, this is a pure financial arrangement, and "in kind" incentives (payment in gas, no money engaged).
- The cash-out method is applied mostly and, when the imbalance is above a tolerance level, is mostly combined with a penalty.
- Reference prices used to calculate cash-out or penalties are almost equally distributed between short term and long-term market prices.

3.5 Cost neutrality

- The majority of the TSOs conclude contracts to acquire the means to carry out the balancing, and among these companies, the costs of these contracts are mainly included in TPA tariffs.
- In most cases, the average percentage of cash-out or balancing penalties collected by transmission companies is less than 0.5 % with a maximum 3 % in specific cases of the total transport revenues.
- Re-allocation into the market of penalties or cash out collected are generally made through specific tariff mechanisms ensuring broad cost neutrality.

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3.6 Pooling

- Most of the TSOs offer means for pooling of imbalance, based on individual shipper level. In many cases TSOs are proposing different types of pooling among which the following: pooling per contract, per balancing zone and per portfolio.
- The majority of TSOs offers ex-ante pooling between shippers. There are mainly 3 types of ex-ante pooling between shippers: facility to trade gas, group of shippers and trading of imbalance tolerance levels.
- In specific circumstances "ex-post" pooling services are made available to shippers.

3.7 Balancing Information

- All TSOs are publishing their detailed balancing rules.
- All TSOs are giving information on shipper's balancing status.
- For some TSOs, this status information is given to shippers within the balancing period.
- The transparency requirements described in the Guidelines for Good Practices agreed in September 2003 regarding balancing have been implemented by most of the TSOs. Moreover the TSOs are complying with the non-discriminatory principle (same rule for same service is applied to all network users).

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ANNEX II: Table on Balancing Practices

	Transmission System Operator	Balancing Period	Flexibility services available	Tolerance band	Imbalance pooling between shippers
Austria	OMV Gas for transit	Hourly / Daily (Transit)	Hub on shippers' initiative	Generally 2%	Non applicable
	AGGM for domestic	Hourly	Merit order list pre-tendered shippers	No	Ex-post, Ex-ante
Belgium	Fluxys	Hourly (Transit)	Inter zone pooling of imbal.	Not applicable	Not applicable
		Daily (Transport)		17% hourly cap.	Ex-ante
Czech Rep.	RWE Transgas	Daily (National Transport)	Storage	Yes (a function of contracted volume and the nominated volume)	No
		Daily (Transit)		Yes	Not applicable
Denmark	Energinet.dk	Daily	Balance service agreements;	5% ;15%	Ex-ante
			GTF		
Finland	Gasum	(Daily)			
France	GRT; TIGF	Daily	Hub, Automatic bal. by storage	20% up to 1000MWh/j	Ex-ante
			Inter zone pooling of imbal.	5% after 1000MWh/j	
Germany	ERT; RWE; VNG; Wingas	Hourly / Daily	Hub, Storage	15%	Ex-ante
	BEB	Hourly / Daily	Hub, Storage	15%	Ex-ante
Greece	DEPA	(Daily)			
Hungary	MOL Transmission	Daily	Storage	Yes	No
Ireland	BGE	Daily		3%	Ex-post
Italy	SNAM Rete Gas	Daily	PSV, LNG, Storage	8%	Ex-ante
Latvia	Latvijas Gaze	Hourly	Storage	10%	
Lithuania	Lietuvos Dujos	Daily		Yes	No
Luxembourg	Soteg	Daily		3% / 5%	Ex-ante
Netherlands	GTS	Daily	TTF, Hub, Storage,	2% / 13% hourly	Ex-ante
			Additional tolerance serv.		
Poland	GAZ System	n/a (Transit)		No	Non applicable
		Daily (Transport)			Ex-ante
Portugal	Transgas	(Daily)			
Romania	Transgaz	Daily	Storage		
Serbia Mont	NIS-Gas	(Daily)			
Slovakia	SPP	Daily (transit / transport)		Not applicable	Ex-ante
Slovenia	Geoplin Plinovodi	Daily		Yes	Ex-ante
Spain	Enágas	Daily	LNG, Storage		No
Sweden	Nova Naturgas	Daily			
Switzerland	Swissgas	Daily			
UK	Interconnector	Hourly	variable inventory.	Within aggregate physical limits	Non applicable
	NationalGrid	Daily	NBP, LNG, Storage	No	Ex-post (beach allo-cations only), not facilitated by NG Ex-ante (inter shipper trading at the NBP)".

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