

GTE Tariff Report

20 June 2001

Table of contents

Executive summary

Section 1. Tariff level

Section 2. Tariff structure

Section 3. Transparency and non-discrimination

Section 4. “Swaps” and “backhaul transportation”

Section 5. Transit

Section 6. “Pancaking”

Section 7. Harmonisation

Section 8. Additional comments to CEER’s and to DG TREN’s comments

Appendix. Questionnaire sent to GTE members

Executive Summary

1. This report has been established by the Tariff Working Group of the GTE in the framework of the “Madrid Forum” initiated by the Commission. It is mainly intended at:
 - providing an overview of the different tarification principles (level and structure) applied by the GTE members for transmission services on their respective networks,
 - explaining the reasons for different choices having been made by the companies, taking into account their specific situation,
 - assessing whether and to which extent the coexistence of different systems are considered as an obstacle to cross-border trade and more generally to the creation of a single market, and whether and to which extent harmonisation should be promoted,
 - addressing specific issues raised by the Commission or other participants to the Madrid Forum, and particularly “swaps”, transit and “pancaking” issues,
 - identifying areas where actions can be taken in the short term by GTE members in order to facilitate cross-border trade.

A preliminary version of this report has been presented by GTE to the “Joint Working Group” on April 20th, and comments have been made by the CEER and by the European Commission (DG TREN). This final version takes into account as much as possible such comments.

2. Regarding tariff levels, two categories of alternative principles are applied by GTE members :
 - tariffs based on “market value” of the transmission services – such reference being *inter alia* justified by the existence of competition (or potential competition) between transmission operators (see also Section 8 point 1 of the Report),
 - tariffs based on a “cost plus”, or “allowed revenue”, principle.

In case the tariffs are derived from costs, some common principles are generally applied, or are expected to be applied :

- existing assets valuation is made on the basis of replacement costs, or re-evaluated historical costs,
- depreciation is based on economic life time of the equipments,
- return is based on actual or standard weighted average cost of capital.

In any case, GTE members underline the importance that the tariff setting principles contribute to maintain a sound investment climate in order to foster safe and secure gas transmission on both short and long term basis and timely expansions of the networks. In order to achieve this goal, it is necessary that :

- tariffs reflect the actual economic value of the existing assets (see also Section 8 point 2 of the Report) and services provided,
- return on investments is such as to provide the operators an appropriate incentive to invest in developing and maintaining the networks.

3. Regarding tariff structure, the systems applied by GTE members can be classified into three categories :
 - distance-related tariffs, based on capacity reservations on contractual paths between entry and exit points,
 - “entry-exit” systems, with separate tariffs and capacity reservations for entry and exit,
 - “post-stamp” tariffs, with no link between tariff and location of entry or exit point.

Considering the specific situation of each network and the reasons put forward to justify the choices made by the companies, it can be said that :

- a distance related tariff is more fitted for networks covering large areas, and/or largely interconnected with other networks, and/or facing competition between operators, and/or offering transit services ;
- an entry-exit system is more fitted for a network with no or little competition between operators, no or little transits, and where major concerns are contractual and operational flexibility for both operators and shippers and the creation of a central trading hub ;
- a post-stamp tariff is more fitted for networks covering a relatively small area, and where there is no or little competition on transmission or transits.

Concerning an other aspect of tariff structure, i.e. the respective parts of the tariff which are linked to the reserved capacity and to the quantity actually transported, GTE considers that the major part of the tariff has to be capacity-related, in order to reflect the cost structure.

4. GTE members have been invited to give their opinion on the main criteria which have to be taken into account in priority for designing a tariff structure, taking into account their specific situation. As a result, the following criteria appear to be the most relevant for the majority of companies :

- giving no undue advantages to the incumbent,
- transparent,
- giving relevant long term signals to the market,
- not cross subsidizing among users,
- user's friendly,
- politically or socially acceptable,
- stable and predictable.

A special comment has to be made on the criterion : “not cross subsidizing among users”. This criterion is considered as one of the most important by almost all GTE members, even if it is also generally admitted that there is always some cross-subsidization in any tariff structure. There is also a consensus for saying that a post-stamp tariff is not individually cost-of-service reflective, and thus is creating cross-subsidization among users. In spite of that, GTE members admit that such tariff may in certain situations be the most appropriate.

5. Concerning “swaps”, a clear distinction has to be made between a “trading swap” and an “operational swap” : the first one refers to gas exchanges made between traders or shippers in order to avoid or to reduce their costs of transmission capacity reservation ; the second one refers to real time optimisation made by a network operator in order to minimize operation (variable) costs.

Savings resulting from the first category of swaps, which are decided by the shippers or traders, are totally attributed to shippers or traders involved in such swaps, as far as they avoid reserving firm transmission capacity.

The second category of swaps generally results in little cost savings, as far as:

- any transmission operator involved has to make available at any time the capacity reserved by the shippers, and thus has to make the corresponding investments,
- any shipper has the right to use the capacity he has reserved at his sole discretion.

GTE considers that such savings, if any, should be shared between all network users rather than attributed to such or such individual shipper.

A similar reasoning applies to “backhaul transportation”. In any case, trading swaps can be used by traders or shippers as a form of backhaul transportation, which does not need any physical reverse

capacity : resulting savings are shared among involved shippers or traders. In some cases, physical flows in opposite directions in the same pipeline are possible : contractual capacity reservations can thus be made in both directions, and obviously result in lower investment costs than creating two specific pipelines. Resulting savings are usually shared between network users.

In any case, it must clearly remain the shippers' or traders' responsibility to choose between reserving capacity by the Transmission System Operators (TSOs) or "swapping" quantities of gas with another trader or shipper, and to arbitrate between the risks and costs associated with one solution or another. The tariff systems must be such as to make such arbitrages possible and efficient.

6. Regarding transit issues, most GTE members consider that, as far as the service and the conditions are identical, similar tariff rules and principles should apply to transits and transportations for delivery within the domestic market.

Nevertheless, number of GTE members consider that, taking into consideration the objective differences between the services, there are fundamental reasons to keep the possibility to deal with transit contracts differently from domestic transportation. The main reasons are the following :

- the service rendered in a transit contract is generally different from a domestic transportation contract : for instance, lower balancing tolerances and higher load factor for transits ;
 - transportation within a country may have specific economical, social or political objectives, such as market development, efficient local signals, etc., which can be achieved through different tariff methodologies - postalisation, zonal tariff, etc., and which should not necessarily be relevant for transits ;
 - due to the large volumes implied in transit contracts, there are special risks associated with transits (risks associated to large investments implied by large volumes) ; these risks may have to be shared between the transmission company and the transit customers in a different way from the one associated with domestic transportation (e.g. via long term contracts or special financing agreements) in order to make the corresponding investments possible.
7. Regarding "pancaking" issues, GTE underlines that, unlike electricity flows, gas flows on the networks, and particularly at the boundaries of different networks, are monitored and thus are totally tracked. Consequently the service rendered by each individual system operator can be precisely identified, and no "pancaking" occurs as long as the price paid by the network user to each operator corresponds to the service rendered by such operator. As a consequence, there is no need for any revenue allocation mechanism amongst operators.
 8. Regarding more generally cross-border issues and harmonization requirements, GTE considers that:
 - differences between tariff structures and levels are explained by the specific situation of each country regarding geography, market organization, supply situation, etc.
 - differences between tariff systems do not create by themselves significant obstacles to cross-border trade, as long as clear, transparent and non discriminatory rules and tariffs are applied;
 - taking into account the differences between the networks and the situations of the European network operators, there is no evidence that harmonization of tariff structures across Europe would have more advantages than disadvantages for the European gas market at this stage.

9. In order to facilitate the use of the various tariff systems by increased transparency, the following steps should be taken in the short term by the TSOs :
- publication of tariffs in the same currency, volume and energy units, if necessary on an indicative basis ;
 - easy access to tariff information on TSOs' websites through links from GTE's website ;
 - information on GTE's website on the changes in the tariffs of any TSO.

Section 1

Tariff Level

The following section reflects the situation and opinions of GTE members at the time of this report. It must be kept in mind that in most countries the regulatory body, where such body is in place or is likely to be in place in a near future, has not yet expressed his view concerning the tariff level issue.

It is also obviously clear for all GTE members, although not explicitly mentioned hereunder, that the tariff level must be such as to encourage companies to invest in order to develop sufficient transmission capacities.

1. Basic Principles

Depending of the market situation and of the regulatory framework in each country, the transmission tariff levels are based on two main categories of principles :

- reference to “market value” (France, Germany, Netherlands), such reference being, inter alia, justified by the existence of competition (or potential competition) between transmission operators (pipeline-to-pipeline competition),
- principle of “cost plus”, or “allowed revenue” derived either from actual costs or from replacement costs, including a return on investment (other countries).

In addition, tariffs may take into account tariffs levels on other relevant European markets.

2. Cost Calculations

Paragraphs 2.1 to 2.5 hereafter reflect the opinion of GTE members, for the countries where such approach is relevant or likely to be relevant, on the way costs should be calculated for tariff determination in the case tariffs are or were to be derived from costs.

2.1. Opening regulatory value of existing assets

There is a consensus among GTE members (with only minor variations) on the opinion that the “opening regulatory value” of existing assets should be based on the basis of replacement cost, or historical costs re-evaluated (indexed at consumer price inflation, for instance), less depreciation. Some members consider only the full replacement cost.

2.2. Depreciation lives

Most GTE members consider that depreciation life times to be used for tarification purposes have to be in line with the economic life time of the assets. The figures may vary in the following range :

- pipelines : 30 to 50 years,
- compressor stations : 20 to 30 years.

This opinion is independent on the fact that such periods are equal to, or higher than, the accounting depreciation period, which is only depending on accounting and fiscal rules.

2.3. Rate of return

Most GTE members agree on the principle of a rate of return based on a weighted average cost of capital (WACC), either of the company itself, or of similar companies operating in the gas transmission business, or with a return on equity at a "reasonable" level (corresponding to the risk level) as giving sufficient incentive for the transmission network development.

2.4. Margin on operating costs

No company considers to take into account any specific margin on operating costs.

2.5. Unit costs calculation

GTE members consider that the unit costs (or unit prices) have to be calculated on the basis of the capacity actually booked by the shippers (or predicted to be booked by the shipper), and the quantities actually transported (or predicted to be transported), in order that such unit prices, when multiplied by the relevant capacities and quantities, would lead to the collection of the "allowed revenue" (cf. section 2 paragraph 3).

2.6. Price adjustments

Particular attention has to be paid to the stability and predictability of the tariffs : tariff calculations methods have to take into account that tariffs should not be changed too frequently. For slight adjustments, one year seems to be a reasonable period. As far as a "price formula" is to be applied, a pluri-annual period (3 to 5 year period) seems to be appropriate.

3. Link between Tariff and Contract Duration

A large majority among GTE members agree on a standard duration of transmission contracts of one year, but some members apply standard durations of 2 or 5 years. Some members are offering the possibility to conclude contracts for shorter or longer duration. The relationship that may exist between the price and the duration of the contract is subject to different points of view :

- for some members, the tariff is not depending on the contract duration ;
- some members point out that long term contracts reduce the risk of unused capacity and, therefore, justify lower tariffs ;
- for some members, the tariffs for longer or shorter terms than the standard period are subject to individual agreements ;
- for a period shorter than one year, the tariff must depend on the period of the year and of the number of months.

In the case of auctions, the tariff is dependent on the results of the auction mechanism.

Section 2

Tariff Structure

1. Categories of tariff systems

The tariff systems on the main transmission networks may be ranked in the following categories :

- capacities and tariffs are defined on a contractual path between entry point and exit point – such tariff being mainly distance related (“Distance Related Tariff”) ;
- capacities are booked independently for entry and exit of the system, and separate tariffs are applied for entry and exit (“Entry-Exit Tariff”) ;
- tariff is not depending on the geographic position of the entry point and exit point (“Post-Stamp Tariff”).

A majority of GTE members apply a Distance Related Tariff on their main transmission network. A significant minority apply either an Entry-Exit Tariff, or a Post-Stamp Tariff.

On the regional systems, tariffs are, in most cases, not explicitly distance related.

2. Specific considerations on Distance Related Tariffs

2.1. Proportion of the total revenue depending on the distance

For distance related systems, it may be difficult to give the exact proportion of the revenue related to distance, as there may be an entry fee, or an additional fixed tariff for services, so that the share which is distance related, depends itself on the distance.

This proportion generally vary between 65% and 95%.

2.2. Distance cap

Only a small number of members (2) apply such a cap on the main transmission network. The reason put forward by other members not to apply a distance cap is that it may lead to some subsidization of long distance users by short distance users.

The distance cap is 200 km in Netherlands and 500 km in Spain.

A distance cap can be justified by the market value of transportation.

On the regional transmission network, a tariff cap, which has a similar result as a distance cap, is applied by certain companies in order to avoid high level charges that may result from long distances associated with small diameters.

2.3. Link between tariff and pipe diameter

Generally speaking, there is a clear link between unit cost of transportation and pipe diameter : the unit cost decreases when the pipe diameter increases. This link is expressed among others by different tariffs levels on main transmission network on one side and on regional networks on the other side.

On the main transmission system, composed of relatively large diameter pipelines (from 600 mm to 1200 mm), the tariff may depend explicitly, or not, on the pipe diameter :

- for most German TSOs, the tariff explicitly depends on the pipe diameter via five diameters categories (but some TSOs apply a simplified system) ;
- for all other companies, the distance element is not explicitly linked with the pipe diameter : this means that the unit tariff takes into account some type of average value of the pipe diameters, costs and capacities.

On the regional transmission system, there is always some kind of relation, at least indirect, with the pipe diameters, either via an average cost, or via an explicit diameter-related tariff, or via specific tariffs on specific parts of the network.

2.4. Reverse flows (“backhaul transportation”)

No company considers to apply a rebate for firm contractual flows reverse to physical flows. The reasons are the following (see also section 4 hereunder) :

- the market value gives no justification of such a rebate ;
- the tariff is calculated taking into account all contractual flows, including reverse flows ;
- on some systems the directions of the physical flows are not stable (they depend for instance on the period of the year, or on gas price differentials).

Nevertheless, some companies may apply specific conditions for interruptible transportation services where such interruptibility is due to the fact that the contractual transportation is in reverse direction compared to the physical flow.

2.5. Aggregation (“pooling”) of capacities

Each company having a distance related tariff system allows aggregation of the shippers’ capacity needs on some parts of its system (whereby the contractual path has to be considered). Such aggregation may be possible either on any part of the system, or in relation with each entry point.

3. Proportion of the total revenue depending on the capacity

All GTE members agree that transmission costs are mainly (90 to 95%) related to capacity. Nevertheless, the proportion of the total revenue which is capacity related varies, depending on the companies, from a minimum of 65% to 100%.

The majority of GTE members are very close to the maximum. The main reason put forward by these members for having a major proportion of capacity related revenue is cost-reflectivity (avoiding cross subsidization between users having different load factors) and market value of transportation (in an alternative solution where the shipper would decide to invest, the cost to be borne by the shipper would almost exclusively depend on the capacity required). This also reflects the fact that the reservation made by the shipper is a capacity reservation. It can also be said that a higher capacity price contributes to prevent from capacity hoarding. Besides, the highest is the proportion of the revenue not recovered via the capacity price, the highest is the exposure of the transmission company to the volume risk.

When the choice has been made of having a smaller part of the tariff depending on capacity than the one that would be in line with cost structure, the justification of such choice has been the acceptability by the market and/or by the regulator.

4. Payment in kind

Regarding the compensation of transportation charges due to consumption of fuel gas, losses, shrinkage gas, ...:

- some operators ask for a payment in kind,
- some operators ask for a specific part of the tariff linked to the gas price on the market,
- others operators include the costs of fuel gas in the transmission costs, and do not have an explicit part of the tariff for covering these charges.

This point seems not to be critical as, at the end, the result for shippers is quite the same in each case.

5. Reasons for choosing a particular tariff structure

The GTE members have been asked to give the reasons for their respective choices regarding the tariff structure, and the main criteria that have to be taken into account in their opinion and in their respective situation when designing a tariff system. The following section reflects their answers.

5.1. Arguments in favour of each type of tariff structure

5.1.1. Arguments in favour of a Distance Related Tariff

The main arguments put forward in favour of a Distance Related Tariff are the following :

- cost-reflectivity on the long term ;
- consistency with market value of transportation ;
- avoidance of subsidies from the short distance users to the long distance users ;
- avoidance of economic incentives to build non efficient new lines (direct lines) by-passing the existing transmission system, which could result in an inefficient outcome for all system users ;
- continuity when passing from one system to another, and absence of access barrier to the network, for gas coming from a neighbour network ;
- facilitation of the comparison of tariff levels among different operators using such tariff structure.

5.1.2. Arguments in favour of Entry-Exit Tariff

The main arguments in favour of entry-exit systems are the following :

- simplicity of administration for a large number of shippers ;
- facilitation of the development of a secondary market for capacity and of a auctions system to reflect capacity congestion;
- facilitation of the introduction of a virtual Balancing Point acting as a gas trading market ;

- flexibility in the operation of the system which may allow the system operator to improve efficiency ;
- possibility to differentiate entry and exit charges to reflect the costs transporting the gas away from the entry points (entry charges) and delivering it to the exit points (exit charges), providing the flexibility to incorporate a significant number of entry and exit points within the charging regime in a variety of circumstances.

5.1.3. Arguments in favour of Post-Stamp Tariff

The main arguments in favour of post stamp systems are the following :

- simplicity and stability along time, including when flows are to change significantly,
- social and political support and acceptability.

5.1.4. Synthesis

Considering the answers given by each GTE member to this question in relation to his specific situation, it seems possible to say the following :

- a distance related system is adapted to a transmission operator covering a relatively large area, and/or with many connections to others operators' systems, and/or likely to face transit requests, due to its geographical position, and/or having large consuming areas close to the border of the system ;
- an entry-exit system is adapted to a transmission operator prioritising the flexible administration of a large number of shippers, and the creation of a trading market with a charging system which reflects capacity constraints and has the flexibility to adapt to different circumstances ;
- a post-stamp system is adapted to transmission operators covering a relatively small area, and/or with only one interconnection to other systems, and geographically situated at an end (according to the direction of gas flows) of the European gas network, and/or not too sensitive to potential by-pass of the existing network by newcomers on the transmission business.

5.2. Relative importance of selected criteria in designing a tariff structure

A set of 17 criteria have been proposed to each company in order to ask them to classify these criteria, from their point of view, regarding the respective importance of these criteria concerning a "good" tariff structure. The word "important" means here that such criterion has to be taken into account in priority in designing a tariff structure.

These criteria have been classified for each company on a scale from 1 (less important) to 10 (most important).

The list of criteria was the following :

- giving no undue advantages to the incumbent,
- giving relevant long term signals to the market,
- not cross subsidizing among users,
- user's friendly,
- politically or socially acceptable,
- compatible with the development of trading hubs,
- favouring cross-border trade,

- giving relevant short term signals to the market,
- consistent with transit contracts and prices,
- not creating discontinuities when passing from one system to another,
- individually cost-of-service reflecting,
- encouraging new investment in transmission,
- favouring the development of the domestic gas market,
- encouraging efficient use of the network,
- avoiding inefficient by-pass lines being built,
- stable and predictable,
- compatible with a fair competition in the transmission business.

The graphic on next page presents the synthesis of the answers.

Every criterion has been considered as very important by at least one company, except “compatible with the development of trading hubs”.

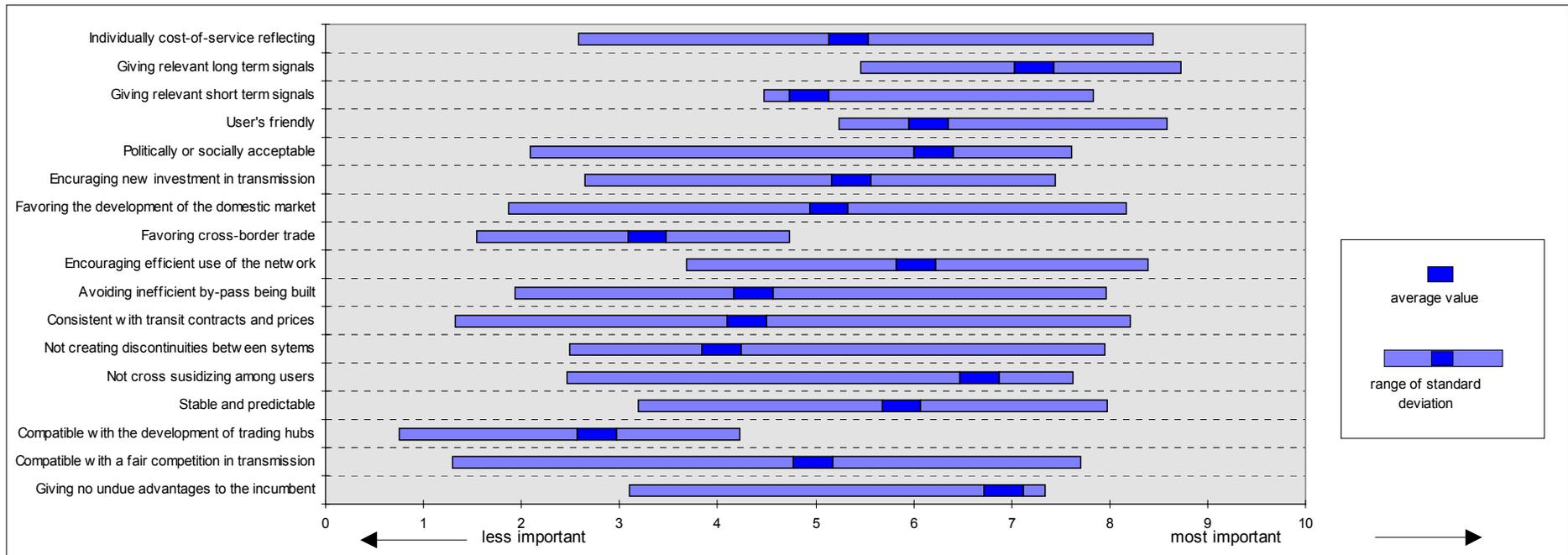
As may be seen on the graphics hereafter, the criteria which have been mentioned as being the most important are the following :

- giving no undue advantages to the incumbent,
- giving relevant long term signals to the market,
- not cross subsidizing among users,
- user's friendly,
- politically or socially acceptable,
- stable and predictable.

It has to be noticed that the criterion “transparency”, which was not included in the list, is in fact considered as one of the most important by all GTE members.

A special comment has to be made on the criterion : “not cross subsidizing among users” (which can be considered as very close to “individually cost-of-service reflective”). This criterion is considered as one of the most important by almost all members. There is also a consensus for saying that a post-stamp tariff is not individually cost-of-service reflective, and thus is creating cross-subsidization among users. In spite of that, GTE members consider that such tariff may in certain situations be the most appropriate, as expressed in paragraph 5.1. here above.

Criteria for designing a tariff system



Graphics of the answers giving a quote equal ranked from 0 (less important criterion) to 10 (most important criterion).

This graphics displays the average quote of the answers obtained and a visualization of the spread of the answers.

Section 3

Transparency and non-discrimination

1. Transparency

Almost all GTE members are publishing the standard tariffs they apply for standard contracts. Some companies are publishing only “indicative prices”. In fact, there is not much difference between the two, as far as in most cases specific conditions can be negotiated in case of services differing from the standard service.

Obviously, in an auction regime, tariffs cannot be published in advance. Only floor prices are published.

2. Non-discrimination

For all GTE members, any difference in tariffs have to be justified by objective differences in the conditions of the service.

Moreover, each transmission operator integrated in a company having a trading arm apply (or will apply) to their trading arm the same rules and conditions and tariff system as those applicable to any other shipper. However, in many cases, this procedure is at present in the process of being implemented.

Section 4

“Swaps” and “backhaul transportation”

1. “Trading swaps” and “operational swaps”

A clear distinction has first to be made between “trading swaps” and “operational swaps”.

Let us assume that trader X has available some quantities of gas at point A and wants them to be made available at point B. Trader Y has some quantities of gas normally available at point B. Trader X may choose to make a “trading swap” with trader Y : X delivers some quantities of gas to Y at point A, and Y delivers the same quantities of gas to X at point B. In that case, both traders agree on the fact that there is no need for physical capacity between point A and point B, and X accepts to take the risk that Y has no gas available at point B.

If X wants to have a guarantee that the gas he has available at point A can be delivered at point B even in the case Y has no gas available at point B, he will have to book transportation capacity from one or several TSOs between point A and point B : in this case, physical capacity corresponding to the contractually booked capacity will have to be made available by the TSOs in any circumstances between points A and B.

This commitment to be taken by the TSOs does not impose that at any time there is a physical transfer of such quantities of gas from point A to point B : due to the physical injections or withdrawals decided by the shippers or the customers at any point in time, there may be some “operational swaps” which take place within the networks. But this commitment imposes that physical capacity must exist from point A to point B, and thus must be paid for to the TSOs by the shippers that are requesting such capacity, in order to avoid cross-subsidisation between network users.

In any case, it must clearly remain the shippers’ or traders’ responsibility to choose between reserving capacity by the TSOs or “swapping” quantities of gas with another trader or shipper, and to arbitrate between the risks and costs associated with one solution or another.

2. Savings due to swaps

2.1. Trading swaps

Trading swaps clearly imply savings of transportation costs, as far as such swaps are precisely intended at avoiding such costs. Such savings are by construction totally attributed to the parties to such trading swaps, as they do not have to book the corresponding transportation capacities, and they accept the corresponding risks.

2.2. Backhaul transportation and operational swaps

When two shippers are booking capacities on the same pipeline in both directions, such capacity has not to be created twice – even if the possibility of physical reverse flow needs in most cases specific investments. In such case, the question of “who is benefiting from the savings” is relevant (cf. paragraph 2.3. hereunder).

Except for the above mentioned case, GTE members are of the opinion that no significant savings are to be expected from contractual flows being in reverse direction compared to physical flows or from operational swaps. The reasons put forward are the following :

- in order to be able to cope with its contractual commitments, the transmission operator has to design its network as if, at any moment, there is no quantity of gas delivered under the reverse flow contract ; so, there are in most cases no savings on investments resulting from reverse flows ;
- significant investment savings would only occur if there were a guarantee given by the “reverse” shipper of delivering gas at any moment, and if the corresponding contract was on such a long period that some investments may be postponed ;
- in practice savings are, in most cases, limited to fuel gas savings which represent a very low part of the total costs.

2.3. Allocation of cost savings due to backhaul transportation and operational swaps

If any cost savings should occur as a consequence of contractual flows in reverse from the physical flows, most GTE members find fairer that the benefits be directed to all system users, through a decrease of the tariffs, rather than such benefit being set aside for the only profit of the shipper in the reverse direction, or being kept by the transmission company. In particular, giving the profit only to the shipper in the reverse direction would result in excluding from the benefit of such savings those shippers who have booked and paid for capacity in the direct direction, and without whom there would not be any opportunity of reverse flow.

Section 5

Transit

The question addressed in this section is the following : how far is it justified to deal differently with “transits” (transportation from one boundary of a given transmission system to another boundary) and transportation for delivery within the domestic market (“domestic transportation”)?

1. Most GTE members consider that, as far as the service and the conditions are identical, similar tariff rules and principles should apply to transits and transportations for delivery within the domestic market.

2. Nevertheless, some GTE members consider that transit implies specific types of services and risk sharing. It could justify the application of specific conditions, provided that the application of the principle of non discrimination is ensured. The reasons put forward by these companies for such differences in conditions are the following :

- a final customer will often only be able to use one system, whereas there are competing transit-systems all around Western Europe ;
- the service rendered in a transit contract may, in certain circumstances or in certain countries, be different from a domestic transportation contract : for instance, lower balancing tolerances and higher load factor for transits ;
- transportation within a country may have specific economical, social or political objectives, such as public service obligations (for instance: supply guarantee or different level of priority for different customers groups), market development, efficient local signals, etc., which can be achieved through different tariff methodologies - postalisation, zonal tariff, etc., whereas transit contracts are strictly based on commercial conditions agreed between the parties ;
- due to the large volumes implied in usual transit contracts, there are special risks associated with transits, against which existing users have to be protected (risks associated to large investments implied by large volumes) ; these risks have to be shared between the transmission company and the transit requester (there are partly covered by long duration contracts which is another difference with contracts for the domestic market) ; the tariff for transit is a result of this specific sharing of risks between the transmission company and a shipper (or a group of shippers) ; as an example, many transit pipelines have been financed and constructed by special risk sharing international consortias, e.g. TAG, WAG, MEGAL, TENP etc.

Section 6

“Pancaking”

1. Tariff pancaking

GTE proposes the following definition of “tariff pancaking” : **when a transportation service is using or potentially using more than one transmission system, there is “tariff pancaking” if the total amount paid by the system user for such service is not justified by the services rendered individually by each of the transmission operator implied.**

One of the main differences between gas and electricity regarding transportation is due to the fact that, unlike for electricity, physical flows of gas are entirely controlled by the operators : it is thus easy to identify clearly what is the service rendered by each operator.

As far as the following conditions are met :

- physical capacity has to be made available by each system operator between the entry point and the exit point on its own transmission system,
- the tariff applied by each operator is cost reflective (or market reflective) and non-discriminatory,

no “tariff pancaking” occurs : the service rendered by each operator can be clearly identified, and the total service rendered by all operators concerned is not less and not more than the addition of the individual services rendered by each operator. This justifies the payment by the network user to each operator for such service.

If the network user does not need the availability of such capacity all along the entire route, he may either book interruptible capacity, or conclude a trading swap with an other network user (cf. section 4 here above).

One consequence of such considerations is that there is no need for any mechanism of revenue allocation amongst operators, as far as each operator is paid for the exact service it renders.

2. Contractual pancaking

When transportation needs more than one network, the network user has to contract with each of the network operators implied : this may be seen as “contractual pancaking”. This can impose *inter alia* timing constraints on the network user.

Such constraints can be limited by TSOs committing themselves to giving answers to transportation requests within a limited period of time (see GTE Capacity Report).

The issue of contractual pancaking will be addressed further by GTE in the framework of its study on “one-stop-shopping” concept.

Section 7

Harmonisation

1. Without any exception, GTE members think that differences in tariff levels are in no way an obstacle to gas trade within the EU, except :
 - in case of excessively high charges at the entry of the downstream system,
 - if they were unduly charged by one or more operators in case of a transportation over more than one system (“tariff pancaking”).
2. There is a consensus on the fact that different tariff levels and/or tariff structures are not by themselves a real barrier, unless lack of clarity or lack of transparency of tariffs which would make a potential network user unable to understand or to calculate the charges he will have to pay. The reasons put forward to justify this opinion are the following :
 - in the past, European transmission system operators have applied different tariff levels without problems (actual gas trade makes clear that gas trade is not hindered by some differences),
 - gas traders are experts and are able to deal with the complexity arising from different systems,
 - different tariff levels are appropriate, if that is a consequence of different economic conditions,
 - different tariff structures are also appropriate as these are to be fitted for the specific situation of each operator (for instance : stage of development of the network, nature of infrastructure).
3. Almost all GTE members think that harmonisation of tariff structures, or of tariff levels, although it could facilitate international gas trade, is not necessary in order to create a fully operational internal market. On the contrary, many members point out the potential disadvantages of such harmonisation :
 - inappropriate tariff structures for individual networks could reduce investment in infrastructure and/or reduce gas demand and/or induce excessive cross-subsidization between users,
 - inappropriate tariff levels may lead to losses for some operators and to windfall profits for others.

There is a consensus on the fact that in the short to medium term transparency, clarity of the rules and non-discrimination for each individual tariff systems are much more important for facilitating gas trade than any forced harmonisation between tariff systems.

Section 8

Additional comments to CEER's and to DG TREN's comments

1. Market value of transportation and pipeline-to-pipeline competition

Both CEER and DG TREN doubt that tariffs can be set on the basis of pipeline-to-pipeline competition.

It must be reminded that such competition has to be fully taken into account by TSOs not only with existing pipelines within some countries (Germany, Netherlands, Austria), but also with new potential pipelines which could be built by competing operators almost anywhere in Europe. This is particularly the case for transits (e.g. different routes can be used from North Sea to Italy or from Russia to Western Europe, using different networks) and for zones near to the boundary between two existing networks (such zones can be connected to any of the existing networks).

It must be taken in mind that the Gas Directive imposes that building new pipelines is a fully competitive activity in Europe.

It can be noticed that in both cases (transit or shorthaul transportation) long term market value of transmission is predominantly depending on distance.

2. Asset valuation

As stated in section 1 of this report, most GTE members consider that the “opening regulatory value” of existing assets should be based on the basis of replacement cost, or historical costs re-evaluated (indexed at consumer price inflation, for instance), less depreciation. It is GTE's opinion that this reflects the economic value of the assets. Any valuation, which would be less than such economic value, would lead to an unacceptable despoliation of the equity owners.

3. Tariff structures

GTE fully shares the view expressed by CEER and by DG TREN that subsidiarity has to be maintained in relation to the determination of tariffs, and that transparency, cost-reflectivity and non-discrimination of each tariff system is more important than harmonising tariff systems.

Both CEER and DG TREN express doubts on the arguments put forward by GTE in favour of distance-related tariffs. This seems to be linked with the idea that transportation tariffs should reflect physical flows rather than contractual capacities. Such an idea seems to result, according to GTE's point of view, from a misunderstanding of what is a firm gas transportation contract.

The commitment taken by a TSO within a firm transportation contract is mainly a capacity commitment : the TSO commits itself to transport the quantities made available by the shipper every day (or every hour) of the contract period within the limit of his capacity commitment. As the cost of a transmission network is almost exclusively a fixed cost linked to the capacity, the price of the contract has also to be linked to the capacity needed for such transportation, rather than to the variable cost of transporting gas (which is linked to the physical flows). Setting capacity tariffs (i.e. firm transportation tariffs) on the basis of physical flows rather than of contractual flows would thus result in unjustified distortions and wrong economic signals.

One of the arguments in favour of a distance related tariff is that such tariff does not create artificial incentives for any operator to build new pipelines for short distances in the vicinity of the boundaries of the system, which would not be economically justified. This has also to be related to point 1 here above.

GTE considers that a distance related tariff is compatible with the development of a competitive gas market, as may be seen from the US example.

Moreover GTE does not share CEER's view that there is no value (including from the consumers' point of view) in continuity of tariffs at the boundaries of different systems.

4. Swaps and backhaul transportation

GTE fully shares the view that the question of how tariffs are taking into account operational swaps and reverse contractual flows is an important one.

In any case, as stated in section 4 here above, it must be reminded that it is the shippers' or traders' responsibility to choose between reserving capacity by the TSOs or "swapping" quantities of gas with another trader or shipper, and to arbitrate between the risks and costs associated with one solution or another.

GTE agrees with DG TREN and CEER that in some specific circumstances backhaul transportation may have an impact on transportation costs. This is the case for instance when a shipper is reserving by the TSO transportation capacity on a path in opposite direction of physical dominant flow : in such a case, the same pipeline will be used for providing capacity to "direct" shippers and to the "reverse" shipper. It must be underlined that this does not result in alleviating capacity congestion : reserving transmission capacity does not imply that the shipper will deliver gas to the system at any time (a capacity is a right for the shipper to deliver gas to the system, not an obligation to do so). For the same reason this does not result in any reduction of the pipeline investment cost, which will have to be sized on the basis of the maximum reserved or expected capacity, and not on the basis of the difference between direct and reverse capacities. The consequence of such a capacity reservation is a reduction of the unit cost (total cost divided by the total contractual capacity), but in no way a reduction of the total cost itself (in practice there are always some additional investment costs in order to make a pipeline able to be used in both directions). It cannot be said, as stated in CEER's document, that "*a persistent incremental flow against this direction will allow disinvestment in infrastructure, and therefore a negative long run cost*". In other words : there can be some offsetting of flows, but in no case offsetting of capacity reservations.

As long as the unit cost is reduced due do such situation, the question is to whom such reduction should benefit : to the initial shipper ? to the reverse shipper ? to both shippers ? to the TSO ? It is GTE's opinion that such savings should at least be shared among all shippers : it would not be fair that the reverse shipper, who has not taken any risk, and who benefits from the same service as the "direct" shippers, be the only beneficiary. It must be underlined that, if the method described in paragraph 2.5 of section 1 here above is applied, such reduction is entirely transferred to the shippers *via* a tariff reduction (see also section 4, paragraph 2.3).

5. Pancaking

GTE welcomes the statement made by CEER that they do not consider any mechanism for sharing revenues among TSOs to be justified.

GTE maintains its opinion that there is no tariff pancaking as long as the tariffs are reflecting the services rendered by the TSOs, such services being perfectly identified as the physical flows at the system boundaries are monitored by the TSOs according to the shippers' requests and totally allocated among the shippers. In particular, adding different tariffs when booking firm capacity on different systems successively is entirely justified as long as the booked capacity is made available by each network operator under contractual terms.

In this respect, the pancaking issue has to be related to the transit issue. In particular, if a shipper requesting capacity from one boundary of a network to another would not pay for such capacity on the same basis as a shipper requesting the same capacity for delivering gas within the system, it would undoubtedly constitute a cross-subsidy between different categories of network users, which would have to be justified.

Questionnaire on transmission tariff issues

The following questionnaire refers firstly to the main transmission system. For companies also involved in regional transmission, an answer concerning the regional system is expected too with a clear indication of the category of system referred to, when there is a difference of tariff treatment between them.

1. General

- 1.1. Please indicate any significant changes and/or amendments which may have occurred in your transmission tariff system, or any significant correction to be made, compared to what has been previously given to GTE and/or published by the Commission.
- 1.2. Do you think that different tariff levels / tariff structures are / are not an obstacle to gas trade throughout Europe ("gas trade" meaning here cross-border commercial regime)? If your answer is yes, to what extent? What could be the ways to overcome such obstacle? If your answer is no, could you explain why?
- 1.3. Do you consider some harmonization on tariff structures is achievable / desirable / necessary to create a fully operational internal market? If yes, on what items? If no, for what reasons? What would be the advantages / disadvantages of such harmonization?

2. Tariff level

- 2.1. On which principles is based the level of the transmission tariffs published (or to be published) or applied (or to be applied) by your company?
 - market value
 - principle of "allowed revenue" (or "target revenue") derived from the global transmission actual costs
 - other (please specify).
- 2.2. Are there, or will there be, any regulatory or legal obligation or recommendation or position expressed by a public authority in your country (regulatory body or government) regarding how tariffs are to be derived from costs? If so, please give a presentation or a summary of it.
- 2.3. In case your tariffs (or revenues) are (or are to be) derived from costs :
 - 2.3.1. Which basis or principle is used or was used or is to be used for determining "opening value" of existing assets? Historical depreciated value? Full, or depreciated, replacement cost? If so, how is such replacement cost evaluated? Ad hoc regulatory value? Other? Please specify as much as possible.

- 2.3.2. For determination of tariffs, on which duration(s) are the assets supposed to be depreciated? Are these durations the same as, or longer than, accounting durations?
- 2.3.3. Which return is allowed on equity? Or on asset value? Is such return determined before or after taxes? On nominal terms or on real terms? Is there an explicit basis or principle for this return?
- 2.3.4. Is there any margin on operating costs?
- 2.3.5. If a unit cost or price is (or is to be) calculated dividing a global cost (or revenue) by a capacity (hourly or daily flow rate), what definition of capacity is used: contractual capacity, capacity actually reached, technical maximum capacity, other?
- 2.3.6. Are there any public statements from any public authority or from your company regarding the method to be used? If so, please give a presentation or a summary of it.
- 2.4. If there were some form of obligation to derive tariffs (or revenues) from costs, does your company have a position regarding the way the level of tariffs (or revenues) should be fixed? If so, please provide it with any justification of it; this question covers the calculation of capital costs (see questions 2.3.1, 2.3.2, 2.3.3 above), operating costs (question 2.3.4) and unit cost (question 2.3.5)?
- 2.5. What is the position of your company regarding any sensitivity of the tariff for gas transmission to the duration of the gas transmission contract? If any, following what rules?

3. Tariff structure (the set of questions of this paragraph is related to the tariff as published or as applied)

- 3.1. In which category do you consider your company's transmission tariff system is to be ranked:
- point-to-point, contractual path and distance related (ex : GASUNIE);
 - point-to-point, not distance related (post-stamp) (ex : BGE);
 - entry-exit (separate reservation and use of entry capacity and exit capacity) (ex : TRANSCO);
 - other (please specify).
- 3.2. In case of a distance related tariff :
- For the transmission system concerned, which proportion of the total revenue related to this system is distance related? What are the reasons for such choice?
 - Is there any distance cap? If so, which? What is the justification for such cap? If no, what would you think of the introduction of such cap?
 - Is the unit price for distance depending on the pipe diameter? Whatever the answer is, for which reasons?
 - Is there any rebate or specific tariff for contractual flow reverse to physical flow? If so, in which cases? What are the reasons for having / not having such rebate or tariff?

- Are there any possibilities for a shipper to aggregate his needs for capacities on some portions of the grid (entry, exit, somewhere in-between)? By which mechanisms? At which conditions?
- 3.3. Which proportion of the total revenue related to your transmission system is capacity related? What are the reasons for such choice?
- 3.4. Is there any payment in kind made by the shippers ("payment in kind" meaning here gas quantities delivered by the shipper to compensate fuel gas consumption)? Whichever the answer, could you explain the reasons for your choice?
- 3.5. More generally, can you explain the reasons for the choices made by your company or your country concerning the tariff structure?
- 3.6. Are there any statements from any public authority advocating for or against one specific system? If so, please provide it or (preferably) a summary of it.
- 3.7. Please classify the criteria listed hereafter, and others which you may consider as relevant, from the most "important" from the point of view of your company, and with regard to the particular case of your country, to the less "important". The term "Important" means that such criterion has to be taken into account in designing a tariff system.
- individually cost-of-service reflecting
 - giving relevant long term signals to the market
 - giving relevant short term signals to the market
 - user's friendly
 - politically or socially acceptable in your country
 - encouraging new investment in transmission
 - favoring the development of the domestic gas market
 - favoring cross-border trade
 - encouraging efficient use of the network
 - avoiding inefficient by-pass lines being built
 - consistent with transit contracts and prices
 - not creating discontinuities in passing from one system to another
 - not cross subsidizing among users
 - stable and predictable
 - compatible with the development of trading hubs
 - compatible with a fair competition in the transmission business
 - giving no undue advantages to the incumbent
 - others
- 3.8. On the list of paragraph 3.7 above, please select 6 criteria, you think the transmission tariff of your company fulfills the best. Vice versa, select 3 criteria, to which the transmission tariff of your company is the less fitted (try to select 3 criteria in this last category, even if you think

that the transmission tariff of your company is, more or less, satisfactory regarding to them). Indicate as much as possible the reasons for your answer.

4. Non-discrimination

- 4.1. What is the best description for the transmission tariffs published by your company:
- a) maximum prices
 - b) indicative prices (prices published in advance to give a fairly close idea but not directly applicable)
 - c) applicable prices without any kind of exception
 - d) other (please specify)
- 4.2. If the tariff applicable to a specific transmission contract may differ from the transmission tariff as published:
- a) What are the key-factors on which this difference is likely to depend (for instance: volume of the transaction, duration of the contract, respective position of the Entry Point and of the Exit Point, result of a commercial negotiation, technical conditions such as delivery pressure or interruptibility...)?
 - b) Is there any kind of obligation (or is there a willingness of your company) to publish the price conditions actually applicable to each transmission service, in exception to the tariffs as published?
 - c) Despite the fact that the tariff may be not fully published, what arguments can be put forward to maintain that they meet the non-discriminatory access objective?
- 4.3. If the transmission department is a part of an integrated company is the trading arm of the company invoiced by the transmission department for its use of the transmission system?
- If not, what reasons may be put forward to this exception?
 - If yes, is this invoice drawn up according to the same tariff rules as those applicable to any other shipper?
 - If the answer to the question above is no, what reasons may be put forward to explain this difference of treatment?

5. Differences between physical flows and contractual flows

In this paragraph, when the term "swap" is used, it strictly means the fact for the gas transmission company to receive two (or more) transmission requests of opposite directions on the same transmission system and, shall, in no case, mean any exchanges between traders or suppliers.

- 5.1. In your transmission system, are there significant cost savings resulting or likely to result from physical flows differing from contractual flows (so called " physical swaps")? Whatever the answer, please explain why.

- 5.2. In your tariff system, who is benefiting from such cost savings? The transmission company? The community of the shippers (through lower tariffs)? The shippers involved in the swaps (for instance by specific tariffs or arrangements)? All of them? By which mechanisms?

6. Differences between transits and transmission for delivery within the domestic market

Does your company consider that gas transits (i.e. large gas volumes transmitted from one border point of the transmission system to an other border point of the system) should be treated differently than gas transmission intended to the internal market served by the transmission system? if the answer to this question is yes, please give the reasons to this difference of treatment.