

- Congestion Management Procedures -

**Draft Explanatory note of DG Energy & Transport
on Article 5 “Principles of capacity allocation mechanisms
and congestion management procedures”
paragraph 3, 4 and 5 as well as Annex 2.2. of
Regulation (EC) No 1775/2005 of the European Parliament
and of the Council
of 28 September 2005
on conditions for access to the natural gas transmission
networks**

THIS DOCUMENT IS NOT BINDING ON THE COMMISSION

1.	Introduction.....	2
2.	Congestion Management Procedures in Regulation 1775/2005	3
2.1.	Introduction	3
2.1.1.	Scope of the Regulation.....	3
2.2.	Relevant provisions	4
2.3.	Considerations on capacity allocation mechanisms with relevance for congestion management procedures.....	5
2.3.1.	Different kind of capacity situations	6
2.3.2.	Additional principles applied under capacity allocation mechanisms	6
2.4.	Distinction between contractual and physical congestion	7
2.4.1.	Contractual Congestion	9
2.4.2.	Physical Congestion	11
2.5.	Requirements of new transportation contracts (Art 5(3)) and relevant provisions of the Annex	12
2.5.1.	Specific requirements of Article 5(3)a: unused capacity on the primary market	13
2.5.2.	Specific requirements of Article 5(3)b: Secondary market	14
2.5.3.	Revenue and price issues in the context of interruptible capacity.....	15
2.6.	Requirements of existing transportation contracts (Art 5(4))	16
2.7.	Article 5(5): physical congestion	17
2.7.1.	The difference between short- and long-term (physical) congestion	17
2.7.2.	Capacity situation II: Requests exceed offer (short-term congestion):	18
2.7.3.	Capacity situation III: Requests exceed offer (long-term congestion).....	18

1. INTRODUCTION

- (1) On 28 September 2005, the Presidents of the Council and the European Parliament signed Regulation 1775/2005 of the European Parliament and of the Council on conditions for access to the natural gas transmission networks, published in OJ L289 of 3.11.2005, page 1. According to its Article 17, the Regulation enters into force on the 20th day following its publication, i.e. November 23, 2005 and shall apply from 1 July 2006.

- (2) With a view to ensuring consistent application of the provisions of the Regulation, in particular of the matter of congestion management procedures, the services of DG Energy & Transport issue this document, which intends to provide explanatory comments on Article 5, paragraphs 3, 4 and 5 as well as Annex 2.2 of the said Regulation. Some relevant aspects of these provisions may also be touched upon in the note on Article 5, paragraph 1 and 2 on capacity allocation mechanisms.

2. CONGESTION MANAGEMENT PROCEDURES IN REGULATION 1775/2005

2.1. Introduction

2.1.1. Scope of the Regulation

- (3) Pursuant to Article 1 (“Subject matter and scope”), the Regulation

“... aims at setting non-discriminatory rules for access conditions to natural gas transmission systems...”

This means that the scope of the Regulation in practice depends on the definition of “transmission” which is provided in Article 2(1), point 1 and reads

“‘Transmission’ means the transport of natural gas through a network, which mainly contains high pressure pipelines, other than an upstream pipeline network and other than the part of high pressure pipelines primarily used in the context of local distribution of natural gas, with a view to its delivery to customers, but not including supply;”

- (4) As a consequence, the concept of transmission in the Regulation encompasses all high pressure pipelines, unless they are used for production or processing of gas¹ or are primarily used in the context of local distribution of natural gas, with a view to its delivery to customers, i.e. are part of a local distribution system. The scope of the Regulation is therefore not limited to cross-border trade, but also includes high-pressure pipeline systems operating at regional scale.²
- (5) In a number of Member States, transmission systems not involved in imports of gas or cross-border trade exist. Thus, the scope of the regulation includes these systems, too.
- (6) In accordance with Article 10 of the Regulation, the regulatory authorities of the Member States established under Article 25 of Directive 2003/55/EC shall ensure compliance with this Regulation and the Guidelines adopted pursuant to Article 9 of this Regulation, when carrying out their responsibilities under Regulation 1775/2005.

¹ See the definition of “upstream pipeline network” in Directive 2003/55/EC, which pursuant to Article 2(2) of the Regulation is also applied in the Regulation.

² In theory, Directive 2003/55/EC would allow regional transmission pipelines to be covered by the definition of “distribution” contained in the Directive (see Article 2, point 5 of Directive 2003/55/EC). According to this definition, “distribution” means the “transport of natural gas through local or regional pipeline networks...” The definition of “transmission” used in the Regulation does not allow such an approach.

2.2. Relevant provisions

- (7) The relevant provisions of the Regulation with respect to congestion management and congestion management procedures may be the definition of congestion management in Article 2(1), point 5 reading

‘congestion management’ means management of the capacity portfolio of the transmission system operator with a view to optimal and maximum use of the technical capacity and the timely detection of future congestion and saturation points;

- (8) the definition of contractual congestion in Article 2(1), point 21:

‘contractual congestion’ means a situation where the level of firm capacity demand exceeds the technical capacity;

- (9) the definition of physical congestion in Article 2(1), point 23

‘physical congestion’ means a situation where the level of demand for actual deliveries exceeds the technical capacity at some point in time.

- (10) In addition, the definition of “unused capacity” in Article 2(1), point 4 might also be relevant in this respect

‘unused capacity’ means firm capacity which a network user has acquired under a transportation contract but which that user has not nominated by the deadline specified in the contract;

- (11) Finally, the main provisions on congestion management procedures are laid down in Article 5 paragraphs 3-5:

3. When transmission system operators conclude new transportation contracts or renegotiate existing transportation contracts, these contracts shall take into account the following principles:

(a) in the event of contractual congestion, the transmission system operator shall offer unused capacity on the primary market at least on a day-ahead and interruptible basis;

(b) network users who wish to re-sell or sublet their unused contracted capacity on the secondary market shall be entitled to do so. Member States may require notification or information of the transmission system operator by network users.

4. When capacity contracted under existing transportation contracts remains unused and contractual congestion occurs, transmission system operators shall apply paragraph 3 unless this would infringe the requirements of the existing transportation contracts. Where this would infringe the existing transportation contracts, transmission system operators shall, following consultation with the competent authorities, submit a request to the network user for the use on the secondary market of unused capacity in accordance with paragraph 3.

5. In the event that physical congestion exists, nondiscriminatory, transparent capacity allocation mechanisms shall be applied by the transmission system operator or, as appropriate, the regulatory authorities.

- (12) They are supplemented by point 2.2. of the Guidelines annexed to the Regulation:

(1) In the event that contracted capacity goes unused, transmission system operators shall make this capacity available on the primary market on an interruptible basis via contracts of differing duration, as long as this capacity is not offered by the relevant network user on the secondary market at a reasonable price.

(2) Revenues from released interruptible capacity shall be split according to rules laid down or approved by the relevant regulatory authority. These rules shall be compatible with the requirement of an effective and efficient use of the system.

(3) A reasonable price for released interruptible capacity may be determined by the relevant regulatory authorities taking into account the specific circumstances prevailing.

(4) Where appropriate, transmission system operators shall make reasonable endeavours to offer at least parts of the unused capacity to the market as firm capacity.

2.3. Considerations on capacity allocation mechanisms with relevance for congestion management procedures

- (13) In order to facilitate comprehension and understanding of the following considerations emerging from the relevant provisions on congestion management procedures laid down in Regulation 1775/2005, it is important to recall that the Regulation introduces “non-discriminatory and transparent capacity allocation mechanisms not only as a general rule, but also and explicitly “in the event that physical congestion exists” (Art 5(5) of the Regulation). Considering the current situation, in particular with regard to the existing capacity bookings³, this remains an ambitious objective, if the existing contracts should not be questioned. DG TREN services take the view that, at least for the time being, alternative options can be conceived based on the relevant provisions of Regulation 1775/2005. This would mean that capacity should be made available to new market entrants under economic conditions. Non-discriminatory and transparent capacity allocation mechanisms would therefore aim at excluding any undue entrance barriers resulting from the fact that incumbent market players could contract capacity in the past under monopoly conditions, i.e. under capacity allocation mechanisms that would not necessarily comply with the requirements of non-discrimination and transparency.
- (14) In order to outline and demonstrate the link between capacity allocations mechanisms (CAM) and congestion management procedures (CMP), it is necessary to introduce some general considerations partly also reflected in the explanatory note on CAM. They mainly concern
- the different situations that could occur at a given point of a transmission system, where capacity has to be allocated and
 - some additional principles applied under a given capacity allocation mechanisms.
- (15) Against this background, reference is made to Article 5(2)c according to which CAM shall

³ See the Preliminary report of DG Competition on the Sector Inquiry on gas, available from http://europa.eu.int/comm/competition/antitrust/others/sector_inquiries/energy/#16022006

*be compatible with the network access systems of the Member States*⁴

CMP cannot be considered irrespective of the relevant CAM. For this reason, it is important to highlight the need for a minimum level of coordination of TSOs with upstream TSOs as well as coordinated regulatory implementation of CAM on a cross border basis. This coordination is moreover needed in light of both security of supply and competition.

2.3.1. Different kind of capacity situations

(16) The capacity situation at a given entry (or exit) point to (from) the gas grid may be characterised by one of the following three situations:

- (I) **Offer exceeds requests**: there is more capacity offered than requested, so the offer (supply) of capacity exceeds the demand for capacity. Such a situation is thought not to create any problems in terms of capacity allocation, since all parties requesting capacity would get what they seek.
- (II) **Requests exceed offer (short term)**: the demand for capacity exceeds the offer of capacity, or in other words, more capacity is demanded than can be made available. Such a situation would be characterised by congestion⁵, which would be defined as short term congestion, i.e. is not supposed to economically justify any investment with a view to increasing capacity and sorting out the congestion problem.
- (III) **Requests exceed offer (long-term)**: as for II., the demand for capacity exceeds the offer of capacity. However, the capacity requests resulting in congestion would be of a nature that justifies economically viable investments, so that the congested situation could be sorted out by adding new capacity, i.e. by undertaking investments (new project or enhancement of existing projects).

2.3.2. Additional principles applied under capacity allocation mechanisms

(17) With respect to CMP, a number of instruments/tools can be identified, which are currently applied in a varying manner in different Member States:

- (I) **the “rucksack” or “capacity goes with customer” principle (RS)**: it means that capacity held by shipper A and used to supply customer Z or held by end-user A can not be claimed by shipper A in case customer Z changes from shipper A to shipper B, but would remain with customer Z who would “give” it to shipper B for supply to customer Z. This scheme would at least apply at exit points.
- (II) **the “buy-back” principle**, according to which TSOs have to buy capacity back under certain circumstances. This could be the case if capacity offered as firm would be interrupted (beyond “force majeure”). The buy-back principle might also be applied in the event of congestion.
- (III) **Firm use-it-or-lose-it (firm UIOLI) (Uf)**: it would mean that a network user holding capacity which he has contracted on the primary market from the TSO would lose the capacity, if it is not used over a certain period of time and hence would give

⁴ see also DEN CAM

⁵ At this point, it does not matter whether it concerns contractual or physical congestion.

rise to suspected capacity hoarding. Under the firm UIOLI principle, the capacity could be temporarily or definitely taken away from the capacity holder. In the former case, he would temporarily lose the right to use the capacity, in the latter he would finally lose it and would need to re-contract it, in order to make use of it. The justification for such an approach must be seen against the wish to introduce competition. Hoarding of capacity is thought to be an effective means to keep competitors out of the market, however, firm UIOLI rules would certainly discourage such kind of behaviour⁶.

- (IV) **Interruptible UIOLI (Ui)**: contrary to the firm UIOLI principle, it would not mean that the capacity holder would lose any unused capacity, but that the TSO would be requested to offer any unused capacity on the primary market on an interruptible basis, thus constituting interruptible capacity in the sense of Article 2, point 13 of Regulation 1775/2005, at a price which reflects the probability of interruption. Thus, interruptible UIOLI could be better spelt out as “use-it-or-lend-it”, i.e. any capacity not nominated for use would be offered to other network users, but falls back to the initial capacity holder at the moment he nominates it for use. Interruptible UIOLI could offer capacity at short notice (day ahead) for a short period (daily contracts) thereby allowing exploiting market opportunities occurring at short notice. However, interruptible UIOLI is not necessarily limited to short term deals; it could potentially also be offered for monthly contracts or a multiple thereof. The principal difference between firm and interruptible UIOLI is that in the case of the former, the capacity holder having contracted capacity on the primary market would definitely lose it, while in the case of the latter, he would only lend unused capacity to other network user without getting involved in the deal, which would be arranged by the TSO.
- (V) **Secondary markets (SM)**: they represent an important instrument to balance short-term capacity needs, to optimise capacity portfolios, minimise overall capacity costs and provide flexibility in terms of capacity. TSOs would have the obligation to facilitate secondary capacity markets with and without title transfer of capacity, in accordance with Article 5(3)b and Article 8 of the Regulation (trading of capacity rights). It is important to note that trading on the secondary market is only carried out among system users. The TSOs shall assure that there is a single web based trading platform for non-discriminatory and transparent trading activities in the secondary market. The TSO might be informed on trades in line with the procedures set up and, where appropriate, in line with qualitative features of capacity trading (e.g. title transfer or not).

2.4. Distinction between contractual and physical congestion

- (18) Article 5(3) and (4) of Regulation 1775/2005 deal with contractual congestion, while provisions on physical congestion are contained in Article 5(5). In order to determine the scope of the relevant provisions with respect to the relevant congestion management

⁶ It has to be pointed out that the responsibility to ensure efficient system use by making unused capacities available to the market is not only an obligation of the TSO, but likewise obliges network users. In order to allow the TSO to meet his responsibility this role of network users has to be clearly set out in transportation contracts.

procedures, it seems necessary to define the situations characterised by contractual congestion on the one hand and physical congestion on the other.

- (19) The relevant provisions on congestion management have also to be seen in the light of the principles laid down in Article 5(1) and (2). This means that non-discriminatory and transparent capacity allocation mechanisms must be applied. TSOs would receive the capacity requests of network user during the open subscription period and would decide on the relevant CAM in function of the capacity situation prevailing.⁷
- (20) Against this background, it is worth recalling that an open subscription period as the starting point of non-discriminatory and transparent capacity allocation mechanisms has to be conducted not only once a year, but as a requirement accruing from the duration of the transportation contracts at offer. While capacity for multi-annual and annual contracts may be allocated only once a year⁸, shorter-term contracts (monthly, weekly and as required by the Regulation also daily) will require allocation procedures in line with their duration and for this reason, CAMs have to be conducted accordingly. These procedures should be organised transparently and in such a way that enough time could be given to the market to prepare offers. When organising this procedure, the TSOs need to coordinate with upstream TSOs.
- (21) Capacity situation I would by definition not entail any situation characterised by congestion⁹ and would therefore accommodate all capacity requests. Capacity situations II and III entail – at this stage - a situation, which would comply with the definition of contractual congestion, i.e. a situation, where the level of firm capacity demand exceeds the technical capacity.
- (22) In this context, it is also important to bear in mind the transparency requirements laid down by Regulation 1775/2005 and the Guidelines annexed to it¹⁰, according to which TSOs have to publish, among other things, information on
- the maximum technical capacity for flows in both directions, with technical capacity defined as
*the maximum firm capacity that the transmission system operator can offer to the network users, taking account of system integrity and the operational requirements of the transmission network*¹¹
 - the available capacity defined as
*the part of the technical capacity that is not allocated and is still available to the system at the moment*¹²

⁷ See the (draft) explanatory note on Capacity Allocation Mechanisms.

⁸ This is not necessarily the case considering that annual contracts may start at 1st April or a possible other date in the gas year usually running from 1 October to 30 September.

⁹ See the (draft) explanatory note on Capacity Allocation Mechanisms.

¹⁰ See Regulation 1775/2005/EC, Annex: Guidelines on 3. Definition of the technical information necessary for network users to gain effective access to the system, the definition of all relevant points for transparency requirements and the information to be published at all relevant points and the time schedule according to which this information shall be published.

¹¹ Article 2, point 18 of Regulation 1775/2005

¹² Article 2, point 20 of Regulation 1775/2005

- the contracted capacity defined as

capacity that the transmission system operator has allocated to a network user by means of a transportation contract¹³

- the interruptible capacity defined as

gas transmission capacity that can be interrupted by the transmission system operator according to the conditions stipulated in the transportation contract¹⁴

- (23) On the basis of this information, network users are thought to submit their capacity requests in line with their needs. The accumulated amount of requests would allow the TSO to decide on the prevailing capacity situation, which would be consistent with the information published.
- (24) Putting aside capacity situation I, the demand for firm capacity would always exceed the available capacity or, taking into account existing capacity contracts, the technical capacity¹⁵ and thus comply with the definition of contractual congestion.
- (25) On a stand-alone basis, however, this could theoretically also apply to physical congestion and thus would not be entirely sufficient to decide whether congestion management under Article 5(3) and (4) (contractual congestion) or Article 5(5) (physical congestion) should be employed. In order to come to a final conclusion on this matter, the concept of unused capacity has to be taken into account.

2.4.1. Contractual Congestion

- (26) Article 5(3) provides an indissoluble link between contractual congestion and the existence of unused capacity. It is actually the existence of unused capacity, which constitutes the difference between contractual and physical congestion. In practice, the two features characterising a contractually congested situation would therefore be
- a situation where the level of firm capacity demand exceeds the technical capacity and
 - where unused capacity exists.
- (27) In the event of contractual congestion, the unused capacity has to be made available on the primary market at least by means of the interruptible UIOLI principle as set out in paragraph (16) IV.¹⁶
- (28) The question may arise to which extent the Regulation addresses the matter of capacity hoarding. Capacity hoarding occurs in connection with contractual congestion. Without

¹³ Article 2, point 19 of Regulation 1775/2005

¹⁴ Article 2, point 13 of Regulation 1775/2005

¹⁵ It is worth recalling that according to the definition of “firm capacity”, firm capacity is guaranteed as uninterruptible by the transmission system operator, while the “technical capacity” means the maximum firm capacity the TSO can offer without jeopardising system integrity or operational requirements of the network.

¹⁶ This is notwithstanding the fact that TSOs have to offer interruptible services irrespective of the existence of unused capacity or contractual congestion according to Article 4(1)b of Regulation 1775/2005. However, as long as firm capacity is available, i.e. no contractual congestion exists, interruptible capacity might be priced almost the same manner as firm capacity in line with the principle that the price of interruptible capacity shall reflect the probability of interruption (see Article 4(1)b of Regulation 1775/2005).

additional measures, it may not be made available anymore to other users. This fact has also been confirmed by the recent sector inquiry on the gas market carried out by DG Competition of the European Commission¹⁷.

- (29) Sometimes, contractual congestion just occurs due to the need to meet fluctuating demand. While therefore contractual congestion does not necessarily mean that capacity is hoarded with a view to keeping competitors out of the market, it would always mean that liquidity of capacity is restricted and capacity to transport gas is withheld from the market. For this reason, it is safe to say that contractual congestion would result in an inefficient and sub optimal use of the technical capacity of the network concerned and would not correspond to efficient or maximum use of capacity. It is therefore important to note that the scope of contractual congestion does not only include capacity hoarding, but also addresses that kind of contractual congestion which might not be avoidable due to the specific characteristics of natural gas demand.
- (30) Provided regulators allow the necessary incentives, properly unbundled TSOs the commercial interests of which are completely separated from any supply interest are expected to be geared to ensuring efficient and maximum use of capacity, as otherwise potential revenues could not be realised.
- (31) In an event where capacity situation II or III prevails, a TSO would first need to try accommodating the capacity requests by making use of the unused capacity in line with the procedure laid down in Article 5(3)a¹⁸. This would apply to all unused capacity, no matter whether it accrues from “old” or “new” contracts¹⁹ (see below). As a consequence, the TSO has to offer the total unused capacity on an accumulated basis with a view to accommodating as many capacity requests as possible.
- (32) It is worth noting that as a general principle, all means available to the TSO to accommodate the submitted capacity requests should be employed. This would include the possibility to contract capacity on an interruptible basis against the prevailing flows (counter flows), but also, where appropriate, the application of the rucksack principle and/or the buy-back principle, as set out above.
- (33) The overall success of such efforts may depend on a number of factors beyond the competence and responsibility of the TSO. While the overwhelming majority of network users may seek firm capacity, which – as pointed out above – can usually not be made available by making use of unused capacity, i.e. by offering interruptible contracts, the value of making use of unused capacity by means of interruptible contracts should not be underestimated for the following reasons:
 - ***The needs of the network users:*** some users submitting capacity requests may only aim at short term contracts (for example daily, weekly, monthly contracts or a multiple thereof). Such contracts might relatively easily be accommodated by means of making unused capacity available on the basis of interruptible contracts. Taking into account information available from historical flow patterns and nomination procedures (see

¹⁷ Preliminary report available from http://europa.eu.int/comm/competition/antitrust/others/sector_inquiries/energy/#16022006

¹⁸ This is without prejudice to Article 5(3)b; see below chapter 2.4.

¹⁹ As for existing contracts, this would however go subject to provisions in Art 5(4).

below) is likely to reduce the risk of interruption and allow offering the interruptible contract with a low probability of interruption.

- ***The extent of the congestion in terms of duration and capacity shortage:*** a marginal capacity shortage emerging from the capacity requests may also be likely to be sorted out by making use of unused capacity without facing a high risk of interruption. On the other hand, it is obvious that a significant shortage of capacity may go beyond the means available to the TSO in that respect. The duration of the congested situation is also likely to play a role, when it comes to overcoming contractual congestion: the shorter the duration of the congestion, the higher the probability that use of unused capacity could sort out the problem, i.e. the risk of interruption becomes more and more acceptable in function of this ratio.
- With a sufficient ***overall level of liquidity in terms of capacity on the primary (here interruptible capacity is meant) and secondary market***, network users may be more inclined to accept the risk of interruption at a given point A, if they can make up for the interrupted capacity at this point by contracting alternative capacity on the secondary market at another point B or making use of other means of both supply and capacity portfolio optimisation. The more liquid the capacity market (including interruptible capacity) the higher might interruptible capacity be valued or the better can interruptible capacity make up for the lack of firm capacity.
- The decision of a network user to accept a contract on an interruptible basis will also very much depend on the ***price of the interruptible capacity***, which should reflect the probability of interruption. Such a flexible approach might provide a further incentive to exploit market opportunities.

- (34) The CAMs to be applied in order to allocate the unused capacity in a situation characterised by contractual congestion should be similar to those described in the note on capacity allocation mechanisms: in cases where all capacity requests can be met by making use of unused capacity, there is no issue at all. In cases where the demand for capacity cannot be met, even if unused capacity is fully taken into account, the (interruptible) capacity should either be allocated by means of a mechanism like auctions or pro-rata or by taking into account the duration and the amount of capacity requested and allocated to the contracts on an interruptible basis.
- (35) Once all unused capacity is allocated and in the event that there are still capacity requests not accommodated, the situation is likely to be characterised by physical congestion, which will be treated below.
- (36) The definition of “congestion management” as laid down in Article 2(1) point 5 takes the approach described fully into account by stipulating, among other things, “optimal and maximum use of the technical capacity”. As a consequence, it can be concluded that an obligation of TSOs accrues from the definition of congestion management, to manage their capacity portfolio with a view to optimal and maximum use of the technical capacity.

2.4.2. Physical Congestion

- (37) Contrary to contractual congestion, a situation characterised by physical congestion indicates that the capacity of the pipeline concerned is fully used in the sense that the capacity is fully nominated for use and that incremental capacity is needed in order to

accommodate all physical gas flows, which are actually occurring or are likely to occur on the basis of the contracted firm and interruptible capacity.

- (38) The definition of physical congestion as laid down in Article 2(1) point 23 of the Regulation does not require that the situation described above has to occur on a permanent basis, in order to establish physical congestion. It would be sufficient if it happens “at some point in time”, which obviously means sometime during the duration of a transportation contract for the relevant pipeline.
- (39) DG TREN services also take the view that physical congestion in the sense of the Regulation would also be given, if there is a sufficient probability that the level of demand for actual deliveries would exceed the technical capacity at some point in time as a result of the capacity contracted on a firm basis. This would also be the case, if and when capacity requests cannot be accommodated anymore by making use of unused capacity on the primary market.
- (40) In this context, it is also important to distinguish between an efficient use of capacity and physical congestion: both would be characterised by full use of technical capacity (technical capacity fully nominated), but in the case of physical congestion, the technical capacity is not sufficient to allow the physical flows of the gas in line with the nominations.
- (41) It is worth highlighting that physical congestion is not likely to be sorted out by other measures than either capacity increases or refusal of access to the system, which should only be an option if all reasonably available alternative means are exploited. Which of these two means may be employed will very much depend on the question whether the respective physical congestion is a short or long-term event. In case of long-term congestion the situation can only be sorted out by adding new capacity, i.e. by undertaking investments (new project or enhancement of existing projects), unless existing congestion management mechanisms, such as firm capacity buy-back obligations successfully cope with the capacity constraints. Where such mechanisms do not exist or are not considered appropriate, for instance in the light of expected market developments, capacity increases would remain the most effective alternative. Against this background, reference is made to Article 8(1a) and 2(4) of Directive 2003/55/EC, which render TSOs responsible for ensuring the long-term ability of the system to meet reasonable demands for the transportation of gas. It can be assumed that unbundled TSOs in pursuing the interests of a network operator would have a natural tendency to invest in new infrastructure provided the investment is economically viable and the regulatory framework is right.

2.5. Requirements of new transportation contracts (Art 5(3)) and relevant provisions of the Annex

- (42) The provisions of Article 5(3) apply to all new contracts and those that may expire and for this reason may be due for prolongation²⁰. As a consequence, all transportation contracts concluded or prolonged after the 1st July 2006 would need to comply with the requirements emerging from the provisions of Article 5(3) including the Guidelines on Congestion

²⁰

At this stage, it is worth noting that prolongation of existing contracts would need to undergo the same procedure with respect to capacity allocation as new contracts. The Regulation does not allow tacit prolongation on the basis of existing contracts, since this would clearly conflict with the principle of non-discrimination.

Management Procedures in the event of contractual congestion contained in point 2.2 of the Annex of Regulation 1775/2005.

- (43) Paragraph 3a of Article 5 of the Regulation establishes the obligation of the TSO to offer unused capacity on the primary market in the event of contractual congestion. For a TSO geared at marketing capacity in order to maximise its revenues, this obligation would not create any additional burden, but just confirm what it would do in its own economic interest. As mentioned, unused capacity must be offered as interruptible capacity by means of the interruptible UIOLI system as explained above.

2.5.1. Specific requirements of Article 5(3)a: unused capacity on the primary market

- (44) The provisions of Article 5(3)a define certain minimum requirements to be met by services offered by the TSO in relation to interruptible capacity²¹ emerging from the use of unused capacity in the case of contractual congestion.
- (45) Article 5(3)a confirms the application of what has been described as interruptible UIOLI system: unused capacity shall be offered on an interruptible basis. This, however, is a minimum requirement (“at least”) reinforcing the fact that the initial capacity holder shall not lose the capacity that he has contracted on the primary market. It does, on the other hand, not exclude that the capacity could be offered under more firm terms, as suggested below.
- (46) The second requirement of Article 5(3)a as for the offer of unused capacity concerns the timing. The unused capacity must be offered to the market “at least” on a day-ahead basis. In order to allow network users to ask for the unused capacity, the TSO has to publish it accordingly, i.e. at least the day before the capacity can be used.
- (47) It is important to bear in mind that “day-ahead” and “interruptible” represent only minimum requirements. Point 2.2.4 of the Guidelines annexed to the Regulation requires the TSO to

Where appropriate make reasonable endeavours to offer at least parts of the unused capacity to the market as firm capacity.

- (48) An example for “reasonable endeavours” may be seen in the use of historical flows allowing TSOs to identify unused capacity with sufficient reliability. Where and if appropriate, a nomination process consisting of different stages and entailing ascending levels of probability concerning the final nomination of gas flows by the holder of firm capacity could complement the approach.
- (49) Available information on historical flows possibly in combination with nomination processes underpinning this information are thought to predetermine the ability of the TSO to market unused capacity albeit on an interruptible basis, but with a high predictability of interruption. In the light of Article 5(3)a and point 2.2.4 of the Annex of the Regulation, DG TREN services take the view that TSOs have to use the potential of this information and

²¹ This wording corresponds broadly to the definition of interruptible services, which in the context of the current explanatory note, will be used in an identical meaning as “interruptible capacity” if not otherwise indicated.

processes (as well as other means at their disposal) in order to decrease the probability of interruption to a level similar or equal to firm capacity.²²

- (50) Regulatory authorities would certainly have a clear role to play when it comes to exploiting the potential of these measures and possibly other means in this respect.
- (51) In this context, it is worth recalling point 2.2.1 of the Guidelines annexed to the Regulation, according to which interruptible contracts “of differing duration” shall be offered by the TSO. It is the understanding of DG TREN services that TSO by making full and unrestricted use of the potential accruing from, for example, appropriate nomination schemes and the information on historical flow patterns, interruptible contracts of differing duration (daily, weekly, monthly and a multiple thereof) can be offered with low probability of interruption, thereby rendering the contracts more attractive to users.
- (52) It is comprehensible that under an interruptible UIOLI system, as described above, a certain relation between the duration of such an interruptible contract and the probability of its interruption cannot be refuted. This notwithstanding would the liquidity of short capacity significantly be increased by the application of the interruptible UIOLI system, thus promoting the transition to a more competitive and integrated internal market for gas.
- (53) All this would however not mean that the rights of the original capacity holder are infringed.

2.5.2. *Specific requirements of Article 5(3)b: Secondary market*

- (54) Article 5(3)b of the Regulation establishes the right of network users to re-sell the capacity on the secondary market, i.e. to another network user. The provision has several effects:
 - It would allow network users to optimise their capacity portfolio by reselling unused capacity on the secondary market (i.e. from one network user to another and without active involvement of the TSO) and thus minimising the capacity costs of network users;
 - Furthermore, capacity trading will enhance liquidity on the capacity market, as in fact not only one capacity offer exists, but several, albeit of different quality.
- (55) While Article 5(3)a and (3)b are presented as alternative and equal options Point 2.2.1 of the Guidelines annexed to the Regulation establishes a preference of the secondary market over unused capacity offered on the primary market on an interruptible basis. Pursuant to this provision, the offer of unused capacity on the primary market by the TSO should depend on whether the unused capacity in question

...is not offered by the relevant network user on the secondary market at a reasonable price

This means that a network user having contracted capacity on the primary market can fully dispose of this capacity, as long as it is not withheld from the market. In a competitive market, a network user (or capacity holder) would either nominate his capacity for use or

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It is worth noting that the approach set out would not contradict the Common Business Practices (CBP) on Nomination rules as agreed by EASEE-gas (European Association for the Exchange of Energy – Gas). However, it is likely that these rules may need to be supplemented and completed in the light of the above.

would try to resell it in line with his needs, in order to reduce his overall capacity costs. The secondary market would, in this respect, take precedence to the interruptible capacity available from the primary market.

- (56) The reasonable price at which the network user is expected to offer capacity is very much likely to be set in the light of the demand level for capacity. In a competitive and liquid capacity market, the reasonable price is deemed to be market based. However, DG TREN services take the view that secondary market capacity would always be sought, even if there were only a very small level of demand on condition that the price of the capacity is “reasonable”.
- (57) Against this background, one could argue that the UIOLI approach embedded in Article 5(3)a may work as a corrective in the event that network users do not allow capacity trading on the secondary market to properly develop, for example by offering capacity at “unreasonable” prices, which could be considered another form of capacity hoarding. This would also apply in a situation, where a new market entrant may prefer contracting capacity on an interruptible basis on the primary market to purchasing it on the secondary market, in particular, if secondary market capacity can in practice only be offered from the incumbent due to the fact that the incumbent has contracted all firm capacity on the primary market. It is obvious, however, that the price of the interruptible capacity would reflect the probability of interruption²³.
- (58) Such a scheme – precedence to the secondary market over marketing unused capacity on the primary market as a corrective for the secondary market –appears to call – among other things – for a certain level of transparency to be introduced to secondary market capacity trading, however, without infringing the necessary confidentiality requirements. Pursuant to Article 8 of Regulation 1775/2005 on “Trading of capacity rights”, TSOs have a role to play in order to facilitate the capacity trading among network users.
- (59) The second sentence of Article 5(3)b is thought to provide the necessary legal basis to Member States, respectively the relevant regulatory authorities, requiring network users to notify capacity trades to TSO, where considered appropriate. The reason why this provision is not mandatory may be seen in the fact that it would not be necessary, if competition has reached a sufficient level or, in other words, if capacity hoarding on the side of capacity holders can reasonably be excluded.

2.5.3. Revenue and price issues in the context of interruptible capacity

- (60) TSOs will need certain incentives to offer and market unused capacity on an interruptible basis, as otherwise the costs of making this service available may render it economically not attractive. Point 2.2.2 of the Guidelines annexed to the Regulation acknowledges this fact by stipulating that

²³

It is worth mentioning that in theory interruptible capacity could always be sold, as long as the relation between its price and the probability of interruption is maintained. Against this background, it would not really matter, whether a network user sells capacity on the secondary market, since nominating and subsequently using this capacity would prevent the TSO to honour the interruptible capacity services that he has sold on the primary market. As a consequence, there would always be a sort of “natural” precedence of the secondary market over interruptible capacity sold on the primary market. This goes, however, without prejudice of the considerations described.

Revenues from released interruptible capacity shall be split according to rules laid down or approved by the relevant regulatory authority.

- (61) As a consequence, the additional income cannot be entirely used for one specific purpose, but has to serve at least two different objectives. It is the understanding of DG TREN services that, at least one of these objectives should provide a sufficient incentive to TSOs to resell unused capacity in the manner and under the scheme described above. The allocation of the total revenue from released interruptible capacity will be approved or determined by the relevant regulatory authority, as this contains the ability of the regulator to determine appropriate incentives. Examples in this respect could be reducing the overall level of tariffs or reducing capacity bottlenecks²⁴. This approach is endorsed by the requirement that

*these rules shall be compatible with an effective and efficient use of the system.*²⁵

- (62) Point 2.2.3 of the Guidelines annexed to the Regulation confirms the role regulatory authorities will have to play with respect to the price of interruptible capacity.

2.6. Requirements of existing transportation contracts (Art 5(4))

- (63) Article 5(4) of the Regulation stipulates that, as a general rule, the provisions of Article 5(3) also apply to existing contracts

...unless this would infringe the requirements of the existing contracts.

- (64) DG TREN services take the view that the requirements of the existing contracts would only be infringed, if
- the contract in question could not be properly executed anymore by applying the interruptible UIOLI approach as required by Article 5(3)a, or
 - explicit provisions in existing transportation contracts concluded before 1 July 2006 forbid the application of Article 5(3) of the Regulation.
- (65) DG TREN services tend to consider the former case a reinforcement of the interruptible UIOLI principle meaning that the initial capacity holder would not finally lose the capacity contracted, but can dispose of it by nominating the gas flows meant to serve his customers.
- (66) As for the latter case, the contractual provisions in question would have to comply with the general competition rules. Where this is not the case provisions would be void and thus could not infringe the requirements of an existing contract.
- (67) In the event, however, that such provisions comply with the general competition rules, Article 5(4) establishes an obligation for the TSO to call on the capacity holder for offering his unused capacity on the secondary market in line with the provisions laid down in Article 5(3)b.

²⁴ As mentioned in the chapter on “System integrity” in the draft explanatory note on “Tariffs”, remedies to congested points in the system could also emerge from the ordinary tariffs approved by the relevant national regulatory authority.

²⁵ Last sentence of Point 2.2.2 of the Guidelines annexed to the Regulation.

2.7. Article 5(5): physical congestion

2.7.1. The difference between short- and long-term (physical) congestion

(68) Article 5(5) of the Regulation explicitly deals with physical congestion and requires that

In the event that physical congestion exists, non-discriminatory, transparent capacity allocation mechanisms shall be applied by the transmission system operator or, as appropriate, the regulatory authorities.

(69) The principal difference between short-term and long-term congestion can be seen in the capacity allocation mechanism applied. As explained in the note on Capacity Allocation Mechanisms, it is determined as a function of the prevailing capacity situation emerging from the capacity requests submitted. Capacity situation II would therefore result in allocating capacity under a non-discriminatory and transparent capacity allocation mechanism (some or all requests will go partially or fully unsatisfied), while capacity situation III would – by definition - call for economically viable investments.

(70) The question what actually makes up the difference between long-term and short-term congestion, and thus constitutes capacity situation II or III has been initially discussed in chapter “2.3.1 Different kind of capacity situations” and will be completed by the following.

(71) In this regard, the driving principle and underlying idea of what constitutes in the view of DG TREN services a non-discriminatory and transparent capacity allocation mechanism including in the event of congestion has to be borne in mind.

(72) It is obvious that with respect to the decision on whether capacity situation II or III is prevailing, circumstances in various Member States may differ considerably and may also depend on a number of factors, such as the maturity of the market, the role natural gas plays in the overall energy supply of a Member State, the level of competition and how it is thought to further develop etc. A very important element in this respect, however, is the extent and the duration of physical congestion, which is very much linked to the question, whether potential investment could turn out to be economically viable. There is of course a difference between laying a new pipe and adding a new compressor station in terms of both economic and time related requirements. While the former may take several years (including authorisation procedures etc), the latter might be done much quicker.

(73) Due to the differences among national gas markets, transmission systems and economic and legal environments of Member States, a certain amount of discretionary is likely to be inevitable, when it comes to making a decision on the prevailing capacity situation. For this reason, the national regulatory authorities ought to define criteria enabling the TSOs to take this decision in the event of physical congestion. While these criteria at national level may need to take into account, in line with Article 1 of the Regulation “the specificities of national and regional markets”, they should be based on principles at European level that fully reflect

- the need for full consistency and compatibility with adjacent systems;
- necessary incentives for investments;
- the need to promote competition and

- the requirements of security of supply.

The application of these criteria should allow the TSO to finally determine which capacity situation prevails. The national regulatory authority should approve the decision.

2.7.2. Capacity situation II: Requests exceed offer (short-term congestion):

- (74) In this situation, the demand for capacity exceeds the amount of technical capacity available. Congestion would arise from transportation requests, the extent of which, however, would not justify new investments.
- (75) Such a situation could occur, for example, if the technical capacity is not fully contracted and a certain amount of available capacity on a firm basis and for a limited period of time is left. Network users may submit their requests, on the basis of which the TSO learns that not all capacity requests can be accommodated, even when making use of all unused capacity, and for this reason, the situation is likely to turn into physical congestion. Applying the relevant regulatory guidelines or criteria would qualify the situation as short-term congested, i.e. investments on the basis of binding capacity requests submitted to the TSO would not turn out to be economically viable.
- (76) In such a situation, the appropriate capacity allocation mechanism is deemed to be characterised by auctions, pro-rata allocation or, where appropriate other means approved by the regulator²⁶. Auctions might be the preferred approach, since their outcome is likely to reflect best the market value of the capacity in question, while on the other hand, non-discrimination, in particular with respect to new entrants, might be better ensured by pro-rata allocation. The general principle that everybody should get what he wants should be accommodated as far as possible.
- (77) When deciding on auction or pro rata allocation, the objective to ensure efficient use of capacity should also be taken into account.
- (78) It is obvious that in such a situation the involvement of regulators is indispensable, but may depend on the level of unbundling. Depending on the entry (exit) point of the system concerned, a preference for one or another mechanism might be appropriate. Also in the event of conflicting objectives, e.g. efficient use of capacity vs. competition, regulators may have to decide on what should be given preference.
- (79) A situation likely to turn into capacity situation II calls for full application and implementation of relevant instruments for capacity allocation. This means, among other things, the effective application of the rucksack principle, at least at exit points, but where appropriate also at entry points on a firm basis. Where legally possible, the necessary mechanisms to employ it should be set up by the national regulatory authorities, which also have to ensure its compatibility with adjacent systems.

2.7.3. Capacity situation III: Requests exceed offer (long-term congestion)

- (80) Capacity situation III would be characterised by a number of transportation requests on top of existing firm capacity contracts the aggregated capacity of which would exceed the technical capacity available during the period of time requested. It would result in

²⁶ Such means could occur in the framework of regional markets, as envisaged by the ERGEG road map.

congestion, the extent of which would economically justify increasing the capacity by means of investment. The regulatory guidelines introduced above (see 2.7.1.) should provide the necessary criteria for TSOs to decide on the economic viability of the investment.

- (81) While the Regulation does not explicitly establish an obligation to invest, it is submitted that properly unbundled TSOs in pursuing the interests of a network operator would have a natural tendency to invest in new infrastructure provided the investment is economically viable and the regulatory incentives are set right. Capacity allocation mechanisms designed to clearly characterise a given capacity situation are thought to fully allow the identification of long-term congestion and thus, on the basis of binding capacity requests, trigger new investments.
- (82) In such circumstances, i.e. the potential investment is thought to be economically viable on the basis of capacity requests submitted and according to the regulatory guidelines, a TSO refusing to invest would not be fulfilling its task according to Article 8(1a) of Directive 2003/55/EC according to which TSOs have to develop their transmission facilities. Article 2(4) of the said Directive providing the definition of a TSO considers, among other things, “ensuring the long-term ability of the system to meet reasonable demands for the transportation of gas” a constituting feature of a TSO.
- (83) Against this background, the Commission services take the view that TSOs should invest in their systems with a view to accommodating reasonable demands for the transportation of gas submitted either as a consequence from binding capacity requests and/or regulatory measures. It is worth pointing out that consultation with network users should play an essential role in this respect. Furthermore, a refusal to invest may constitute a presumption of abuse of dominant position and should be checked by the relevant competition authorities.
- (84) When it comes to investments, it is important to ensure coordination among the relevant TSOs and regulatory authorities dealing with the network upstream to that where the investment is carried out, in order to ensure that the size of the investment takes into account future market developments. Again, also consultation with network users would be essential in this respect.
- (85) In reality, situations could occur that are not clear-cut. For instance, in order to accommodate a specific capacity request, more capacity is requested than can be made available during year 1 to 4, however from year 5 onwards, all capacity requests could be accommodated. Whilst such a situation cannot be excluded, it is rather unlikely to occur in a growing market. The decision on investments in such an event may very much depend on the actual situation prevailing.
- (86) If a certain amount of capacity firmly contracted on the primary market, goes unused for a considerable time and if it can be firmly assumed that this capacity would not serve well justified purposes, such as seasonal modulation, security of supply reasons, public service obligations etc, but deliberately restricts the liquidity of capacity on the market, a temporary application of the firm UIOLI principle as set out above should be considered. It should, however, only be employed if approved and backed by the relevant national regulatory authority.