

## Recommendations on implementation of Third Party Access to Storage and Linepack

### Introduction

The 2003/55/EC Gas Directive's provisions of Article 19(1) require, where technically and/or economically necessary, that third party access (TPA) to storage and linepack services is offered for providing efficient access to the system for the supply of customers, as well as for the organisation of access to ancillary services. Article 19(1) also establishes that Member States can choose either negotiated (n) or regulated (r) third party access or both of these procedures.

The introduction of storage access rights stems from the acknowledgement that the question of storage access is an important obstacle to achieving a fully operational and competitive internal market.

Access to storage, but also to linepack services, plays a crucial role in the development of a competitive European gas market, for the following reasons:

- although situations differ widely from one country to another, storage and linepack are main tools for providing flexibility services in Europe;
- the ability to adapt supply to foreseeable variations in demand and adjust erratic fluctuations of demand with adequate supply, is one of the prerequisites for entering and operating in the gas market;
- failure to provide the flexibility services required by the market can adversely affect the simultaneous opening of national markets and thus competition in a single European market.

Therefore, it is of the utmost importance that Member States apply a common set of principles to choose the most suitable procedure for granting access to storage facilities and linepack, according to local market characteristics and with a view to fostering competition at EU level.

The aim of this paper is to formulate a set of recommendations which can provide an effective guide in implementing the provisions of Article 19 of Directive 2003/55/EC, while complying with the principles of the Directive itself. At the same time, CEER's experience in regulating transmission systems, as well as previous experiences of negotiated access to transmission networks in Europe, need to be taken into account, in order to ensure a common approach to storage access in the EU and avoid the sort of problems and delays in market opening that have already occurred in the recent past. In a second stage, CEER will contribute to the development of Guidelines for Good Practice for access to storage, which will address both regulated and negotiated access, to ensure that Directive's objectives are met in both regimes.

In CEER's view, freedom of choice between negotiated and regulated TPA should be seen in the light of the Directive's objectives and provide an opportunity of adapting the best available solution to the different market models in the Union and should certainly not be a way of hampering competition and market development. This task is part of the Member States' compulsory challenge to define the best course of development for the new energy market that Directives 2003/55/EC and 2003/54/EC have designed, introducing simultaneous market openings, legal unbundling of transmission and the definition of a shared minimum set of competencies for regulators.

## Directive 2003/55/EC

The previous gas Directive, no. 98/30/EC, provided for access to storage and other ancillary services only as part of the gas system. The experience gained in implementing the internal market has suggested that *additional measures should be taken to clarify the provisions for access to storage and other ancillary services* (Directive 2003/55/EC, whereas 20).

In accelerating progress towards the second stage in the liberalization of the European gas market, Directive 2003/55/EC has introduced TPA to storage facilities and linepack.

According to Article 2(9), a “storage facility” *means a facility used for the stocking of natural gas and owned and/or operated by a natural gas undertaking, including the part of LNG facilities used for storage but excluding the portion used for production operations, and excluding facilities reserved exclusively for transmission system operators in carrying out their functions.*

Linepack refers to *the storage of gas by compression in gas transmission and distribution systems, but excluding facilities reserved for transmission system operators carrying out their functions* (Article 2(15)).

The text explicitly clarifies which facilities or portion of storage and linepack are excluded from TPA. They mainly refer to transmission operations (also consistently with balancing rules) and production requirements. In its Interpretation Note<sup>1</sup> the EU Commission has provided further clarifications and stated that in the case of non market-based balancing regimes, the relevant authorities should make sure that there is a clear delimitation between storage capacity available for third parties and capacity that is not available to them on the grounds of transmission system operators’ or production’s needs.

According to Article 25, letter f), regulatory authorities are also entitled to *monitor the access conditions to storage, linepack and to other ancillary services as provided for in Article 19. and the effective unbundling of accounts [...] (Article 25, letter e)).* For storage activities, in order to avoid discrimination, cross-subsidisation and the distortion of competition, *natural gas undertakings shall, in their internal accounting, keep separate accounts for each of their transmission, distribution, LNG and storage activities as they would be required to do if the activities in question were carried out by separate undertakings* (Article 17(3)).

Exemptions from TPA can also be granted in the case of new storage investments, under Article 22, provided that they comply with a number of strict criteria, e.g. they should enhance competition and security of supply in the gas market. They are decided first by Member States on a case by case basis, after which the final decision is taken by the EU Commission.

The Directive also points out that *storage facilities are essential means, amongst other things of implementing public service obligations such as security of supply [...] (whereas 21).* But public services obligations for storage facilities *should not lead to distortion of competition or discrimination in the access to storage* (whereas 21). In overall terms, storage system operators should refrain from discriminating between users requesting access to storage facilities, thus treating third parties in accordance with the requirements of a fully operational and competitive internal market (Article 8(1)).

In this framework, as already mentioned, Article 19 of Directive 2003/55/CE, allows Member States to choose either negotiated or regulated access for storage and linepack and other ancillary services, or both of these procedures.

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<sup>1</sup> Interpreting Note of Commission Services on the Electricity and Natural Gas Internal Markets Directives 2003/54 and 2003/55, version 1.0 (under discussion), 29.10.2003.

According to the Directive, it is clear that the choice of the most suitable procedure is closely linked to the degree of competition in which a specific flexibility service operates, which can be very different from one country to another. This has been amply recognised by whereas 22: *Where a storage facility, linepack or ancillary service operates in a sufficiently competitive market, access could be allowed on the basis of transparent and non-discriminatory market-based mechanisms.*

This means that negotiated TPA to storage and linepack is dependent on the existence of a satisfactory degree of competition for a specific service provided by a storage facility or by linepack. If competition is insufficient, regulated TPA must be applied. Due to the particular features of the flexibility market, characterised by the presence of different services, a mix of negotiated and regulated regimes can also be adopted in individual countries, provided that different services belong to separate markets, each with different degrees of competition.

This legal architecture is the formalisation of well known economic concepts. While transmission and distribution networks give rise to a situation of natural monopoly and are *essential facilities* for gas utilities operating in the wholesale and retail markets (thus requiring transparent, non-discriminatory but also cost reflective access conditions), storage can, in some circumstances, be considered as a *bottleneck facility*: some storage investments may be duplicated by a new entrant in the gas market, at an acceptable cost with respect to the profitability of natural gas trade at wholesale and/or retail level. In this case there is no strict cost reflectivity requirement, and the desired outcome can be assured by the market. However, this condition must be verified in the specific context and for the specific flexibility service under investigation. In reality, only in very limited cases can new entrants develop new storage sites and be competitive in the short term, due to long lead times or geological constraints. As we shall see later, competition pressure from alternative tools to storage can also be limited, and the same applies to linepack. In these cases Member States should take appropriate steps to promote competition and efficient access to the system, introducing regulated access until competitive forces are in place.

## CEER Position Paper

At the Madrid Forum Joint Working Group, on 15th of July 2003, CEER presented the progress report *Third Party Access to Storage and Flexibility*. The aim of the text was to describe the major issues on flexibility and storage and to broaden the debate on this theme.

The starting point of the paper is that:

- flexibility does not refer to a single service but includes a list of services that can not be exhaustive and which is developing increasingly in order to satisfy users' demand. Flexibility services are also expected to increase because of their pro-competition role. Unlike transmission, this growth would not only imply the development of current services, but also the creation of completely new services;
- the study on access conditions to storage (but the same applies to linepack) should be carried out with reference to the specific flexibility service that storage provides and to the alternative tools to storage that can provide the same flexibility service.

Flexibility is the availability of gas and/or capacity (transmission, storage, LNG capacity) needed to:

- adapt supply to foreseeable volume variations in demand and to adjust the erratic fluctuations of demand;

- exploit market opportunities with the market opening to competition, i.e. using different combinations of flexibility tools in order to achieve cost advantages or enjoy new market businesses;
- comply with public service obligations and strategic objectives.

According to this definition, the CEER paper identifies different (non-exhaustive) needs and tools constituting the demand and supply side of the flexibility market.

Demand for flexibility services mainly relates to:

- modulation on different time lags (seasonal, weekly, daily, hourly);
- trading and risk management;
- strategic purposes (e.g. security of supply, top-up regimes, public service obligations).

On the supply side, different tools can match the demand:

- storage;
- production flexibility (beach swing);
- flow management (e.g. import flexibility, backhaul, interruptibles, linepack, parking);
- other sophisticated flexibility tools (e.g. spot markets, virtual storage).

However, real potential substitutability between any different flexibility tool should be closely investigated. For example, storage used to efficiently match supply and uncertain demand at a seasonal or daily level, may be substituted by other flexibility tools:

- the production flexibility-beach swing can be used to vary the contracted supply nominated by a producer each day;
- seasonally variable supply contracts (known as high-swing contracts) provide an alternative source of seasonal flexibility. The same applies for appropriate flow management mechanisms such as gas transit, interconnectors, backhauls and linepack;
- demand-side tools, such as interruptible contracts which provide for interruption by the TSO, the supplier or self-interruption, e.g. for power plants, can guarantee a certain share of flexibility.

In reality, these flexibility tools are not always close substitutes for storage, as they may provide different performances in terms of peak, duration and time response. Production flexibility (beach swing) and import contracts are likely to be insufficient to cover wintertime peak demand. Moreover, the flexibility they provide may not be publicly known and easily identified because sensitive details of bilateral deals are involved. Production and import flexibility are suited for seasonal modulation, while linepack is typically used for hourly demand fluctuations. Interruptible contracts may also be exploited only for short peak shaving purposes.

Furthermore, even when two different flexibility tools are potential substitutes, there might be some constraints preventing actual substitutability. The costs of transporting flexibility through the grid and/or possible congestion should be taken into account during competition assessments on storage and other flexibility tools. Tariff systems may distort competition at the national/European level (e.g. tariff pancaking imposing fees for “moving” sources of flexibility through the network). Inconsistent allocation criteria for transmission and storage capacities can also thwart any advanced use of the system.

Finally, in the case of few companies operating in the market, collusive strategies under horizontal or vertical agreements (even tacit) may impede real substitutability.

The flexibility market depicted above gives an explanation of the *technical and/or economic* requirements of Article 19 of the Gas Directive<sup>2</sup>. If there are no flexibility tools apart from storage that can satisfy any operator or newcomer's demand for certain kind of flexibility services, this means that access to the gas market is technically possible only through storage. In this case, access to storage must be granted, either under an nTPA regime or under an rTPA regime.

The economic requirement makes this provision even more binding, i.e. if the shippers' need for a certain kind of flexibility can be fulfilled by any tool other than storage, this tool should be available at a cost that does not represent an economic barrier to entry in comparison with the cost of using storage itself. This result can be achieved either through effective competition, under nTPA, or through cost-reflective tariffs, under rTPA.

### *The relevant market for storage and flexibility*

To draw the boundaries of the flexibility market(s) in the EU, and evaluate how strong competition forces are, CEER believes that it may be helpful to define the relevant market.

As far as gas market flexibility is concerned, the definition of *relevant market* requires a very high level of expertise in competition law, and a good understanding of flexibility tools in the gas market. Co-operation between energy and competition authorities is therefore highly desirable.

According to the Community Competition Law, the definition of *relevant market* combines the product market (*products and/or services which are regarded as interchangeable or substitutable by the consumer by reason of the products' characteristics, prices and intended use*) and the geographical market (*the area in which the firms concerned are involved in the supply of products or services and in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas*)<sup>3</sup>.

The definition of the product market mainly deals with the substitutability criterion. This involves demand and supply substitution. While the demand substitutability criterion enables research to be targeted on any substitute products, supply substitutability examines whether there are currently firms producing goods and/or services that are not perceived as demand-side substitutes for the products of the party or parties under investigation, but which are produced using assets that could readily be re-deployed to the production of competing products.

The definition of the geographical market must consider, in particular, the above mentioned tariff issues and possible related obstacles. Different tariff regimes can act as a barrier to any storage infrastructures located in another system. On the other hand, a country-specific approach may be restrictive and questionable in the case of supra-national areas of reference (national vs. notional). In some areas, for example in Northern Europe, there are very close relationships between neighbouring national markets (e.g. Great Britain and Belgium) in which gas transit and strong back-haul effects provide flexibility. However, it is worth highlighting that in the recent UK Competition Commission report on the case of the acquisition, by Centrica plc, of the largest

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<sup>2</sup> see note 1.

<sup>3</sup> These definitions are based on Articles 85 and 86 of the Treaty, in particular in section 6 of Form A/B with respect to Regulation 17/62, as well as in section 6 of Form CO with respect to regulation 4064/89 on the control of concentrations of a Community dimension.

storage facility in UK<sup>4</sup>, the geographical market for flexibility was limited to Great Britain, in spite of the links that Great Britain has with other countries.

When the geographical market coincides with the national one, the role of the Member States is even more decisive for further market developments.

However, in the case of integrated operators and in the absence of transparent conditions and developed spot markets, such criteria may turn out to be at best problematic and at worst, useless. If minimum requirements on the available information set are not complied with, the definition of the relevant market is hardly possible. Nevertheless, we can consider these obstacles themselves as the proof firstly of how weak competition is in these markets, and secondly of the need for regulated access.

### *EU benchmarking of storage conditions*

The first provisional findings of a questionnaire completed by CEER members and a recently conducted survey<sup>5</sup> show that although the EU regulation on flexibility has left a wide area of discretion to national authorities, there can be no doubt that a great deal of work has been done to enhance competition and protect final consumers.

Regulation discrepancies among CEER members usually reflect the availability of different infrastructures and natural resources, or the different degree of market development. Great Britain has already built up sound experience of the competitive market (relevant production flexibility, LNG, National Balancing Point). In contrast to this, there are still countries at the early stage of liberalisation, with integrated companies operating storage as a part of the gas system, with bundled services offered with no transparency on prices and available capacities. Third party access to storage is spread across the EU, with a few exceptions (e.g. France). Most countries with a high seasonality of gas demand have introduced direct access to storage (Austria, Belgium, Italy, The Netherlands and the UK). Actually also Spain has direct access even though demand gas seasonality is low. Apart from Austria and Belgium, countries with direct access to storage have unbundled/separate storage companies.

There is not a predominant choice between nTPA and rTPA. Some countries like Italy have a sort of mix between these regimes indeed, which applies to different kinds of services (nTPA also applies to new storage sites). The priority of access to storage for public service obligations and security of supply purposes is quite common but this allocation criterion does not always mean that there is a portion of storage reserved for such a reason (e.g. Spain). The prices for storage services are published in most countries; the same cannot be said for available capacities.

Linepack capacity is about one day. Belgium has already implemented TPA to linepack with a regulated regime. In other countries, e.g. France, Italy, Luxembourg and Republic of Ireland there is no access to linepack, as it is totally used by transmission operators consistently with balancing regimes.

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<sup>4</sup> Competition Commission, Centrica plc and Dynegy Storage Ltd and Dynegy Onshore Processing UK Ltd, Cm 5885, 1/8/03.

<sup>5</sup> As the survey has been carried out among CEER members, Germany is not represented in this benchmarking.

## **A common approach to storage and linepack access in Europe**

CEER considers that at this stage of market development, a common effort towards effective market opening is needed. This means that a phased approach could be necessary and the transitional use of regulated tariffs required. The adoption of rTPA reflects the presumption of a weak competitive framework.

CEER welcomes market-based mechanisms that can help in achieving non-discriminatory and transparent conditions for access to storage and flexibility services, in the spirit of the 2nd IGM Directive. Indeed if competition is in force, market-based mechanisms (e.g. auctions) may be a viable allocation rule.

Insofar if nTPA is adopted, Member States and the gas companies involved should have the burden of proof and substantiate the underlying specific competitive conditions for each service identified as necessary for customers supply. Strict monitoring activity is also needed to prevent any strategic behaviour and abuse of market power.

It is worth adding that Member States could find their position on the trade-off line between the pro-competition provisions for storage and linepack and the need to grant security of supply and respect public service obligations. As fairness in access rules should not jeopardise security, a kind of safe supply should not hold back the development of competition in the internal market.

With regard to public service obligations, Member States should respect the provisions of the Directive and avoid imposing conditions that hamper competition. CEER considers that: the criteria used to define these obligations must be published; a clear identification of those who pays PSO costs should be guaranteed; and national choices should always be consistent with European perspectives. The Proposal for a Directive of the European Parliament and of the Council concerning measures to safeguard the security of natural gas supply will of course contribute to this highly desirable approach, consistently with the pro-competition objectives promoted by the European energy legislation.

## **CEER recommendations**

Implementation of Article 19(1) of Directive 2003/55/CE should:

- choose between rTPA and nTPA according to an in-depth analysis of national market conditions for each flexibility service, adopting the best pro competitive solution;
- adopt nTPA only where competition is actually in force or, in the case of new entrants, in order to assure level playing field conditions or provide incentives to new investments; nTPA could be chosen when:
  - a complete regulatory framework for the remaining part of the supply chain has been implemented:
    - a regulated regime for transmission is in place: i.e. entry/exit systems allowing gas trading within the transmission grid, thereby allowing alternative sources of flexibility to compete with flexibility from storage facilities;
    - transparent information for the determination of available transmission and storage capacities is made available;
    - available storage (flexibility) capacities i.e. space, injectability and deliverability are published for day, week, month ahead;

- gas quality specifications comply with interoperability criteria;
- there is evidence of real storage (linepack) substitutes for each of the services demanded by the market (substitutes are clearly identified and available under transparent conditions for prices and access rules); or alternatively, there is evidence that entrance to the storage (linepack) market is possible in terms of:
  - technical and/or economical availability of new storage capacity;
  - implementation times for the full running of operations;
  - absence of legal barriers to the development of new storage sites;
  - consistency with flexibility demand levels;
  - no dominant position of a single company with regard to flexibility supply and
  - transparent and liquid wholesale gas markets revealing the price of storage and other flexibility services over the relevant time period (e.g. by showing the summer/winter spread or the system marginal price within the day).
- the identification of the relevant geographic market considered – e.g. in the case of a notional market across more than one country – reveals the existence of harmonised systems and compatible rules for cross border trades, backhauls treatment, capacity allocation rules and the absence of bottlenecks and capacity constraints;
- in the case of the choice of nTPA, assume the burden of proof, providing and publishing appropriate information on points a), b) and c);
- foster all measures suited for the development of spot markets, and, according to market demand, new investments aiming at an increased availability of flexibility services;
- due to the complexity and technical aspects of the issue, involve both national regulators and competition authorities.

The following non-exhaustive check list<sup>6</sup> may be useful:

- Does the storage company have a significant market power, i.e. is it able to increase prices above the cost-reflective competitive level?
- Does the market provide incentives for potential collusion between market operators?
- Has the storage operator any incentive to withhold capacity? Are the costs of such a strategy consistent with benefits for the company and its affiliates?
- Has the storage operator the ability and any incentive to discriminate between customers in the provision of capacity?
- Does the storage operators hold information that gives it an unfair advantage with respect to its users and competitors? Does lack of information increase risk and uncertainty faced by customers, competitors and potential entrants?
- Does the storage operators lack the incentive to innovate in marketing new products and invest in increasing capacity?

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<sup>6</sup> Borrowed from *see note 2*.

- In the case of a storage company that is also active in supply or importing swing flexibility, is the storage operator able to manipulate (gaming on the system) its sources of flexibility in order to raise wholesale gas prices? Is this strategy intended to increase its profit or harm its customers and competitors?

CEER believes that in the event of one or more positive answers to the above proposed check list, rTPA is the right option. The same check list can be adopted for TPA to linepack (letters a) to f)) and verified for transmission system operators.

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