

**Conclusions of the**  
**5<sup>th</sup> meeting of the European Gas Regulatory Forum**  
**Madrid, 7-8 February 2002**

General

1. Participants at the fifth meeting of the European Gas Regulatory Forum, the Commission, the representative of the Spanish Presidency, Regulators, representatives of the EU/EEA Member States, industry and consumers, confirmed their determination to make rapid progress in the context of the Madrid Forum on a broad range of issues relating to the need to create a fully operational and integrated internal gas market. Representatives of the regulatory authorities of the candidate countries participated for the first time in the meeting of the Madrid Forum with a view to assist the countries in preparing for full participation in the internal gas market.
2. Practical experience in market opening and achieving access to the European gas network since the entry into force of Directive 98/30/EC as stated by the Commission's first benchmarking report has revealed significant remaining obstacles for new market players in entering the market and for eligible customers really benefiting from competition in the internal gas market. The Forum therefore reiterated the importance of fair, non-discriminatory and transparent mechanisms for access to the network. The Forum noted that even though there has been good progress, important efforts are still required to ensure such access conditions and a fully operational internal market for gas.
3. The Forum welcomed the considerable amount of work accomplished since the fourth meeting of the Madrid Forum on 2-3 July 2001 notably by the Joint Working Group of representatives of the Commission, the Council of European Energy Regulators (CEER) and interested Member States and by the gas industry, in particular through GTE (the Association of European Gas Transmission bodies). The Forum stressed the importance of ensuring rapid implementation of this work in order to consolidate tangible progress.
4. The Forum welcomed the further development of the Strategy Paper prepared in response to the request of the fourth meeting of the Madrid Forum with respect to which the CEER, the Commission, representatives of gas consuming and trading organisations and the majority of Member States agreed. Whilst not reaching a consensus on all aspects of the Strategy Paper, the Forum as a whole considered the analysis of the European gas market provided by the Strategy Paper and the priorities and proposed actions which it sets out to be a useful starting point for the future work of the Madrid Forum. The Strategy paper takes a pragmatic approach, which outlines that all markets should develop according to their specific needs, and under appropriate regulatory oversight. The Forum underlined the importance of developing concrete steps forward, in particular in the manner outlined below.

Tariff structures

5. The Forum noted that as such tariffs for crossing TSO boundaries do not exist in gas. In relation to cross-border transportation of gas, network users pay a sequence of TSO

charges for the systems they use *en route*. However, significant differences exist between national tariff structures, which, where not based on common principles, may hamper gas trade and market liquidity. In order to facilitate transportation across TSO boundaries and in order to ensure - in the absence of effective pipeline-to-pipeline competition - cost reflective tariffs when individual tariffs are combined, the Forum stressed the need for a European gas market based on common principles and co-ordination when necessary with regard to national tariff structures. Harmonisation, however, needs to take account of the specificities of different national transmission systems.

6. The Forum reiterated the four principles identified by the CEER at the third meeting of the Madrid Forum with regard to tarification:

- Non-discriminatory access to the network and to ancillary services;
- The provision of relevant, timely and accurate information by TSOs (and where appropriate market participants);
- Cost-reflective charges which do not cross-subsidise; and
- The efficient use of the network.

With regard to access to ancillary services, one Member State noted its view that non-discriminatory access to ancillary services is still an issue under discussion in the proposed new directive.

7. In addition, the Forum stressed the importance that tariffs are designed in a way that:

- facilitates efficient trade and the development of mechanisms, such as hubs, which facilitate market liquidity and gas-to-gas competition within the internal market;
- the level of tariffs is cost reflective and derive from a robust modelling of general network flows and network configuration;
- the structure of tariffs reflects the underlying cost drivers. In order to send the correct signals to network users about the specific costs they impose on the network, tariffs should contain signals consistent with the robust modelling referred to above that reflect these specific costs.

8. The Forum adopted the following principles which shall apply to all tariffs or charges for the use of gas transmission networks, which shall:

- a) be cost reflective and based upon a robust modelling of flows and the network;
- b) facilitate efficient gas trade, facilitate market liquidity and gas-to-gas competition;
- c) ensure high levels of transparency;
- d) provide effective and timely signals encouraging efficient long-term investment in transport infrastructure;
- e) take into account the specificities and market characteristics of different networks;
- f) provide a fair return on investment for the TSOs;
- g) appropriate oversight;
- h) any differences in tariff conditions applied to different customers for similar services should reflect underlying costs.

9. One Member State noted its view that tariffs should be cost-reflective only in the absence of effective pipeline-to-pipeline competition taking into account specific network flows and configuration.
10. The representatives of the CEER, the Commission, consumer organisations, traders and GEODE considered that an "entry-exit" tariff structure would in principle meet the above general criteria and best facilitate the development of competition in the European gas market. In certain specific circumstances, the calculation of entry-exit tariffs for European gas networks (such as where flows are unidirectional and the network topology is almost linear) may result in a tariff equivalent to a distance related or "point-to-point" tariff, which might, in such circumstances, therefore be considered as one specific example of an entry-exit system.
11. Whilst welcoming the guidelines as a sound basis for continuing work on this issue, and agreeing with many of the underlying principles put forward by the CEER, a number of comments and reservations were stated by GTE, notably:
  - the need to find the appropriate balance between different objectives, e.g. cost-reflectivity and simplicity;
  - considerable differences exist between each TSO network. This needs to be reflected in tariff methodologies, and as such the decision whether entry-exit or point-to-point tariff methodologies or combinations thereof must be taken on a case-by-case basis; and
  - capacity requirements (including critical conditions and contractual commitments) are more relevant to tariff design than actual physical gas flows.
12. The majority of the Forum welcomed the study recently launched by the Commission on convergence of non-discriminatory tarification systems and congestion management aimed at supporting the work of the Madrid Forum on these key issues and ensuring convergence. The importance of co-operation and active contribution of all relevant stakeholders and in particular the gas industry was stressed by the Commission's representatives, the CEER and representatives of traders and consumers, notably in relation to providing necessary gas flow data as a basis for network modelling. Whilst willing to participate constructively to the study, GTE underlined that information should only be sought which is both necessary and reasonable. Other stakeholders, in particular EFET and GEODE, expressed their interest in actively collaborating in preparing the study.
13. While the Forum invited national regulatory authorities and TSOs to start implementing the above general principles in national and company tariff systems, it was agreed that further work is necessary on the paper prepared by the CEER. The Forum invited the CEER in close collaboration with the Commission, GTE and other stakeholders to further develop and detail the above principles and to undertake work on issues in relation to valuing and charging for interruptible capacity, incentives on TSOs for efficient network operation, short distance tariffs and transit. In particular, the CEER, in close consultation with GTE, were invited to examine the concrete consequences of different tarification methodologies in different systems. The results of this work should be presented for discussion at the next meeting of the Forum.

### European energy infrastructure

14. The Madrid Forum took note of the Communication on European energy infrastructure as presented by the European Commission on 20 December 2001. The Communication stresses the importance of ensuring an efficient use of existing energy infrastructure and a stable regulatory framework favourable to investments in new infrastructure to ensure that the benefits of the single market and security of supply are enjoyed by all customers across the EU. While the key responsibility for ensuring adequate infrastructure lies with EU industry, proper co-ordination between public authorities and the different market players is important. The Commission invited the participants of the Forum to actively contribute to the follow-up on the range of actions proposed by the Communication. The Commission and GTE will discuss in the near future how to take work forward on this issue.

### Transparency requirements with regard to available capacities

15. The Forum stressed the importance of ensuring non-discrimination with regard to access to information on system use including available capacities of the system. The Forum welcomed the decision by GTE and its members in principle to publish available capacities at all cross-border entry and exit points. The representatives of the Commission, CEER, and representatives of consumers and traders noted their agreement to the guidelines attached in Annex I in relation to calculation methodologies and transparency requirements with regard to available capacities of gas transmission, LNG and storage facilities and invited GTE and its members to co-operate with the CEER and national authorities in implementing them in practice. The Forum invited representatives of the CEER to discuss with GTE in the coming weeks the guidelines to ensure that they can be easily and practically applied in an effective manner.
16. The Forum took note of a presentation made by GTE on principles applied by different gas companies in relation to allocation of scarce capacity. The Forum invited the CEER in co-operation with the Commission, GTE and other relevant stakeholders to further develop the different principles and methodologies in order to ensure the applicability and convergence of non-discriminatory rules for congestion management and capacity allocation in cases of scarce capacity.

### Recommendations on Guidelines for Good Practice regarding TPA services, tariff structures, balancing etc.

17. The Forum adopted a set of Recommendations on Guidelines for Good Practice regarding TPA services, tariff structures and balancing (ref. Annex II). The recommendations are aimed at (i) clarifying the roles and responsibilities of the main parties in gas transportation; (ii) ensuring the application of the principle of non-discrimination; (iii) facilitating cross-border trade and customer choice through competition in the internal market; and (iv) avoiding distortions to trade.
18. The Forum stressed the importance of actively monitoring the extent to which gas transmission operators meet the high standards outlined in the guidelines. It welcomed the Commission's intention to benchmark these. The Forum invited GTE to contribute actively to this process. The Forum recognised the importance of TSOs offering contracts

for capacity of different durations determined according to market needs while ensuring non-discriminatory third party access.

19. With respect to balancing, the Forum underlined the importance of non-discriminatory methods, and adopted the following principles to be followed by TSO's, as put forward by the CEER:

The rules set by a TSO obliging Network Users to balance their inputs and offtakes of gas from its network and the charges imposed on Network Users for imbalance should:

- a) be non-discriminatory and not distort local, national or cross-border forward or spot energy markets;
- b) incentivise Network Users, through charges for energy imbalance, to balance their own inputs (offtakes) of gas by targeting incentives wherever possible to those who are "out of balance"; a certain amount of imbalance may be allowed to which no imbalance charges apply provided these tolerances are non-discriminatory; and
- c) where the TSO offers additional flexibility it must be priced as a separate service to ensure that there is no cross-subsidisation.

Furthermore:

- d) TSOs should be able to recover from the generality of Network Users those balancing costs, which cannot be targeted to Network Users who are out of balance provided that:
  - i) the costs are efficiently incurred; and
  - ii) the method of cost recovery is non-distortionary and non-discriminatory.

20. Whilst stressing the need to benchmark actively the adopted guidelines, the Forum invited the Commission, in close collaboration with CEER, GTE, Eurogas and other relevant stakeholders to keep the guidelines under review with the objective of their regular updating.

#### Technical interoperability

21. The Forum welcomed GTE's initiative to establish, in co-operation with Edig@s and in consultation with other industry associations and network users, a new open association called EASEE-Gas (European Association for Streamlining of Energy Exchange - Gas) with the objective of developing and promoting common practices to simplify and streamline business processes that will contribute to an efficient and effective European gas market. EASEE-Gas will be established no later than 1 April 2002. The Forum stressed the importance of rapid and tangible solutions to concrete technical obstacles to interoperability of different networks and gas qualities and invited GTE in liaison with EASEE-Gas and all relevant stakeholders including upstream gas producers, to set out a work plan and a time-schedule for solving issues in relation to technical interoperability and to present progress during the next meeting of the Madrid Forum.

#### Multiple gas suppliers, long-term contracts and gas release programmes

22. The Forum discussed the document prepared by the Commission in consultation with all Madrid participants on long-term contracts and availability of multiple gas suppliers, including an analysis of gas release programmes. While recognising the importance which

long-term contracts have played in securing gas supplies for Europe and recognising in principle the legal acceptance of long-term contracts, the Forum stressed that the existence of multiple gas suppliers and real supply-side gas-to-gas competition are essential pre-conditions for providing real benefits to consumers from market opening. Where necessary and legally possible, gas release programmes implemented at national level may help enhance such gas-to-gas competition and may in certain cases even be necessary to achieve real supply-side competition. The Forum requested the CEER to prepare a discussion document for the next meeting on the following issues:

- TPA and tariff arrangements for long-term access (pipeline, LNG and storage); and
- arrangements that facilitate efficient long-term investment in network infrastructure (recognising that substantial investment takes place external to the internal gas market).

### Gas supply potential for Europe

23. The Forum welcomed the comprehensive work undertaken by the International Association of Oil & Gas Producers (OGP) analysing the domestic EU/EEA gas production potential and the potential of existing and new external gas suppliers within the context of a competitive single market for gas. The analysis of OGP has demonstrated that Europe is in a relatively favourable gas supply situation with significant domestic gas reserves potentially available and abundant gas reserves within economic reach in neighbouring regions. While challenges exist with regard to the development of gas reserves, an open and competitive European gas market is considered by the gas producing industry as an attractive market for developing such gas supplies provided the right policies and economic conditions prevail including appropriate fiscal policies and environmental regulations. Both internal and external supply security and diversity will be maximised by encouraging competitive market entry. Placing energy objectives at the heart of EU foreign relations and promoting open investment and market regimes in non-EU/EEA countries was considered important by the gas producing industry. The Forum stressed the importance and quality of the work carried out by OGP and invited OGP to continue its work on these issues and to prepare a more detailed paper for the next meeting of the Madrid Forum.

### The way forward.

24. With a view to ensure continued rapid and coherent progress, the Forum asked the Joint Working Group of representatives of the Commission, the CEER and interested Member States in liaison with all relevant industry and consumer bodies to monitor the rapid implementation of the decisions taken by the Madrid Forum and to co-ordinate the prioritised future actions and work agreed and prepare a full progress report on these matters for the next meeting of the Madrid Forum.

**GUIDELINES ON CALCULATION METHODOLOGIES AND TRANSPARENCY REQUIREMENTS  
WITH REGARD TO AVAILABLE CAPACITIES  
OF GAS TRANSMISSION, LNG AND STORAGE FACILITIES**

1. The calculation of available firm transmission capacity requires a network model and flow simulations in which due account is taken of the fact that non-firm transmission contracts allow to alleviate the peak flows. The calculation methods used by the network models should ensure that consistent principles are used among TSOs at a European level.
2. LNG facilities shall offer and publish separately the capacities of the landing terminal, the regasification plant and LNG storage. The operators of storage facilities shall publish separately the volume and flow (injection and off-take) capacities.
3. The minimum data to be published by the system operators on their web-sites shall be the capacities at each LNG and storage facility and each entry point of interconnected networks, in both directions (if applicable):
  - (a) the physical flows: annual average and annual peak
  - (b) the total contracted firm and interruptible capacity
  - (c) the available capacity on the primary market
  - (d) an interactive standard form giving the final tariffs for a case specified by the system user
  - (e) (in real time) the aggregate amount of nominations at each entry point.
4. In the very short term the requirement is to update the publication of the data on a monthly basis. Within one year:
  - all values shall be updated each time the grid operator commits himself to new firm capacity and each time a contract for firm capacity expires
  - screen based capacity booking must be possible on the primary market.
5. The evolution of the data over 20 years forward should be published and updated at least twice a year. This publication shall take into account the expiry date of all contracts, including the capacity reserved for the captive market.
6. The system users, especially those who can be interrupted, must know the circumstances that could affect the availability of capacity. The system operator shall publish, with at least six months notice, an account of works planned on its facilities, for maintenance or development of the installations, and which will affect the amount of capacity available.
7. If the system operator denies a capacity, which was marked as available, or if he grants more capacity to a system user than what appeared to be available, he shall duly motivate his decision to the national regulatory authority.
8. If the system operator denies a firm capacity because it exceeds the published available firm capacity, this can be considered as a duly substantiation of refusal. This requires that the regulator has approved the calculation method of the published

available capacities, and that anti-hoarding mechanisms and congestion management rules are applied. The system user retains the possibility of appeal to the national regulatory authority on any decision of the system operator.

9. The national regulatory authorities shall have the powers to refuse the confidential treatment of aggregate data.

**RECOMMENDATIONS ON GUIDELINES FOR GOOD PRACTICE IN RELATION TO TPA SERVICES, TARIFICATION, BALANCING ETC.**

**1. Background.**

The 3<sup>rd</sup> meeting of the European Gas Regulatory Forum (the Madrid Forum) held in Madrid on 26-27 October 2000 requested the joint working group of representatives of the Commission, the CEER and interested Member States to:

*"...consider the development of recommendations on guidelines for good practice regarding all necessary TPA services, including tariff structures and derivation, balancing and imbalancing charges and the role of market based mechanisms such as secondary capacity trading markets to facilitate the efficient use of the network."*

Draft Recommendations for Guidelines were discussed during the 4<sup>th</sup> meeting of the Madrid Forum, which instructed the Joint Working Group to finalise the draft Recommendations for Guidelines for adoption by the 5<sup>th</sup> meeting of the Madrid Forum.

The 4<sup>th</sup> meeting of the Madrid Forum also *"...stressed the need for definition of clear roles and responsibilities of the different parties and requested proposals to be made in this respect for the next meeting of the Forum."*

These Recommendations for Guidelines have been adopted by the European Gas Regulatory Forum at its fifth meeting held in Madrid on 7-8 February 2002. The recommendations are aimed at (i) clarifying the roles and responsibilities of the main parties in gas transportation; (ii) ensuring the application of the principle of non-discrimination, (iii) facilitating cross-border trade and customer choice through competition in the internal market, and (iv) avoiding distortions to trade.

While these recommendations on guidelines for good practice are not legally binding they are intended to contribute in the short and medium term to achieving a fully operational internal market for gas.

It is important that progress in implementing the guidelines and compliance with them is monitored regularly by the Madrid Forum. GTE is invited to contribute actively to this monitoring process.

**2. Main roles and responsibilities of Transmission System Operators (TSOs) and network users**

Within the new regulatory and market environment of the internal market for gas characterised by a multitude of market players and unbundling of integrated gas companies, security of supply can no longer be assumed to be the responsibility of one single party.

A new chain of responsibilities with regard to security of supply and infrastructure planning between public authorities and the different market players including shippers and TSOs therefore needs to be enshrined in order to ensure certainty in this respect. Obligations must be allocated clearly to different players and appropriate to their role.

In this respect Member States will have a role in defining security of supply output standards within a public policy framework. Within this framework it may be left to the market and industry to develop the most efficient solutions to meet the agreed outputs.

The main roles and responsibilities, which TSOs and network users are expected to play in this new context may be summarised as follows:

#### 2.1 Main roles and responsibilities of TSOs

1. TSOs, be they separate entities or unbundled transmission functions of integrated companies, are responsible for the provision of technical transmission capacity and the technical integrity and safety of network operations.
2. The minimum role of the TSO would involve the maintenance, operation and development of its network including sufficient long-term investment planning; provision of non-discriminatory access to its network moving any network users' natural gas within its system in fulfilment of a contract (see section 3 on TPA services); co-operation with other TSOs to ensure interoperability between different systems and efficient and non-discriminatory procedures facilitating trade and allowing network users to transport natural gas throughout the EU transmission network; maintain physical system balance (residual balancing role).

#### 2.2 Main roles and responsibilities of network users

1. A network user is a customer of a TSO and would enter into contracts with TSOs for shipping of gas. End-use customers, producers, suppliers and traders may choose to be shippers.
2. Network users are responsible for commercial balancing of gas in-input and off-take from the system in accordance with prevailing contractual specifications, technical rules and agreed procedures.

### **3. Recommendations on guidelines for good practice regarding necessary TPA services:**

In order to ensure non-discrimination between related undertakings and third parties, avoid potential distortions to trade, and facilitate cross-border trade, TSOs should:

1. Offer unbundled TPA services for access to pipelines and LNG facilities as well as all necessary ancillary services to the extent that such facilities are operated by the TSO. Ancillary services include allocation, blending, quality monitoring, metering and balancing. Insofar as TSOs operate gas storage facilities they shall offer unbundled TPA services to such facilities when such access is technically necessary for providing efficient access to the transmission and/or distribution networks;
2. Offer the same range of services on the same conditions according to the principle of non-discrimination to any eligible third party within the EU as to marketing affiliates;

3. Publish in national language(s) and English on the Internet the main conditions of all services, including tariffs and imbalance charges and maps of their network identifying all major entry and exit points;
4. For the services provided, publish physical and available capacities initially at least at the cross-border points on the Internet on a regular/rolling basis and in a user-friendly manner;
5. Co-operate with other TSO's on interoperability issues to develop Interconnection Agreements (IAs) and inter-TSO operational balancing agreements (OBAs) and actively pursue harmonisation or convergence to facilitate interoperability e.g. with regard to gas quality specifications where practical and economical. TSOs will support the establishment of EASEE-Gas aimed at streamlining gas transportation and trading procedures across the EU;
6. Offer both long-term and short-term firm services on demand (flexible duration and starting date of service) and interruptible service when firm capacity is not available and no liquid secondary market exists;
7. Develop TPA services and access rules so that facilities and ancillary services can be used to meet obligations in neighbouring regimes, subject to availability of such facilities and services and to technical and operational feasibility;
8. Design capacity services to facilitate trading and reutilisation of capacity and in a way, which would not hamper release;
9. Standardise nomination procedures and units of measurement and develop information systems and electronic communication means to provide adequate data to network users and simplify transactions (such as nominations, capacity booking etc.). Formalised request procedures and response times should be harmonised among European TSOs according to best industry practice. TSOs should also co-operate in co-ordinating the maintenance of their respective networks in order to minimise any disruption of transmission services to shippers and TSOs in other areas in order to ensure equal benefits with respect to security of supply including in relation to transit and should publish the corresponding operational information;
10. Implement non-discriminatory and transparent capacity allocation mechanisms and when applicable congestion management procedures, which should be reviewed the relevant authorities;
11. In case difficulties in meeting contractual delivery obligations should arise due to short term congestion, notify network users which might potentially be affected and seek a non-discriminatory solution without delay;
12. In order to avoid conflicts of interest, the system operators should be sufficiently functionally independent from the supply business of vertically integrated companies.

#### **4. Recommendations on guidelines for good practice regarding tariff structure and derivation:**

1. In order to ensure transparent, objective and non-discriminatory tariffs, TSOs should publish reasonably and sufficiently detailed information on tariff derivation and tariff structure, including at least:
  - General tariff methodology (cost based, international benchmarking etc.);
  - Definition of the cost base if relevant for tariff setting taking into account the situation with regard to pipeline-to-pipeline competition (asset valuation and depreciation principles applied);
  - Tariff structure (point-to-point, entry/exit, zonal or nodal system, postage stamp);
  - Functional allocation and capacity/commodity allocation principles;
  - Detailed tariff design (tariff elements) including charges for capacity overrun and their derivation;
  - Indexation of tariffs (if any), or principles for tariff variations;
  - Specific tariffs or rules applied to backhaul transportation or specific services if any;
  - Regulatory involvement in tariff setting.
2. As far as differences would hamper cross-border trade, TSOs should pursue convergence of charging principles and tariff structures.

#### **5. Recommendations on guidelines for good practice regarding balancing, imbalancing charges and settlement processes:**

In order to ensure non-discrimination between related undertakings and third parties, avoid potential distortions to trade, and facilitate cross-border trade, TSOs should:

1. Design fair, non-discriminatory and transparent balancing rules (e.g. in relation to issues such as tolerance levels, balancing period, balancing requirements in heat units etc.) that are based on objective criteria, reflecting genuine system needs and reasonably necessary on the basis of system and flexibility resources available to the TSO. Balancing rules, which should be reviewed by the relevant authorities, should avoid cross-subsidisation between system users;
2. Ensure that the same rules (including the same charges for flexibility services) are applied to own commercial operations of vertically integrated companies as to third parties on a formal and verifiable basis;
3. Ensure that balancing charges are non-discriminatory, broadly cost-neutral to the TSOs and published whilst providing appropriate incentives on shippers to balance input and off-take of gas and not to endanger the system;
4. Ensure compatibility of balancing regimes (tolerances, imbalance charges etc.) in order to facilitate cross-border gas trade. Where it is justified that balancing regimes (tolerances, imbalance charges, balancing periods etc.) remain different between interconnected networks, agreements between TSOs should be put in place in order to facilitate cross-border gas trade;

5. Design balancing regimes in a way, which would not hamper the development of competition in the provision of ex ante balancing services;
6. Facilitate pooling and ex ante trading of imbalance services between different system users;
7. Market participants shall be provided with sufficient, well-timed and reliable information about their balancing status and imbalance charges, where such information can be provided at reasonable costs;

**6. Recommendations on guidelines for good practice regarding the role of market based mechanisms such as secondary capacity trading markets:**

In order to ensure non-discrimination and promote liquidity in the gas market, TSOs should:

1. Allow TPA capacity rights to be freely tradable in a secondary market;
2. Endeavour to discourage capacity hoarding and facilitate reutilisation of un-used capacity.