EFET comments on the GTE report Definition of available capacities at cross-border points in liberalised markets, dated 10 July 2003

General points

EFET welcomes GTE’s report, which initiates discussion on the issues surrounding the definition of available capacities at cross-border points. Accurate and meaningful numerical capacity information, including short and long-term available capacities, must be published for users to make efficient use of the system and to support competition in the gas supply market.

The GTE paper examines technical issues and physical laws relating to the calculation of maximum physical operating capacity. EFET supports the development of a shared understanding between TSOs, users and regulatory authorities on the technical aspects of these calculations with the aim of ensuring that maximum capacities are accurate, up to date and published at all relevant points.

Users need capacity information, not only at cross-border points, but also at all entry and exit points to the TSO’s network, including connecting points to storage facilities, hubs, interconnectors and other transmission and distribution networks. Capacity information should be provided for any other relevant point within the TSOs system where capacity constraints could impact on the network users.

The GTE paper does not examine in any depth the definition and calculation of available capacity. GTE acknowledged in the Madrid JWG meeting of 15 July 2003 that the paper does not discuss a commercial model for the calculation of available capacity. Nor does the paper explore the calculations of or allowances made for operational margins and PSOs. EFET believes that these issues need to be addressed simultaneously; otherwise, even if the technical principles are agreed, available capacity information will not be accurate, consistent or meaningful for users.

TSOs need to share information (with each other and with users) to provide coherent capacity information at interconnected points.

Comments on the text

1 Introduction

EFET maintains its position that numerical capacity information should be published irrespective of the number of shippers. Provided TSOs keep the number of users at a given point confidential, there is no breach of confidentiality in publishing aggregate data.
The location of capacity information on each TSO’s website should be clearly signposted and published in both national language(s) and English.

2 Differences between natural gas and electricity transmission

Although it is useful to understand the technical differences between gas and electricity, this should not prevent the application of similar approaches to available capacity calculations, where these would benefit the efficient operation and use of the gas system e.g. in relation to the commercial model, transparency and non-discrimination etc. Furthermore, market based approaches to congestion management are relevant for both industries.

3 Capacity in gas transmission

EFET does not agree with the definition of available capacity provided by GTE in Section 3. On a daily basis, available capacity should mean the amount of capacity forecast to be unused. This includes contracted capacity that is forecast by the TSO to be unused, based on actual usage during the preceding days. On an annual or long-term basis, available capacity should be calculated according to the TSO’s planning assumptions and typical seasonal forecasts.

We would like GTE to explain how Public Service Obligations (PSOs) affect the calculation of available capacity at cross-border points and define the relevant PSOs for each Member State. Any PSOs that do impact on the calculation of available capacity must be clearly defined and published for each country. Where these relate to definitions of winter severity, specifying the peak demand (e.g. 1 in 20 peak day or a threshold temperature), this information should also be provided. GTE should work towards harmonized peak-day design criteria for each country (acknowledging that this may require changes to legislation in certain countries.)

6 The influence of variations in the flow patterns on maximum physical operating capacity

In addition to the examples provided by GTE, EFET would like GTE to provide a specific example of how 2 TSOs would arrive at an agreed operating capacity for a single cross-border point. We suggest the following framework.

- Consider the pipe from Node A to Node B that flows gas across the cross-border point C (with a constant diameter).

- Physically the flow will primarily depend on pressures Pa and Pb.

- Contractually there will be an agreement between Buyers and Sellers (and probably between TSOs) at point C that specifies a maximum and minimum pressure (Pcmax and Pcmin)
- TSO X’s assessment of (firm) pipeline capacity will then be based on the pipeline diameter (fixed) and the pressure differential \( P_a \) minus \( P_{c\text{max}} \).

- TSO Y’s assessment will be based on \( P_{c\text{min}} \) minus \( P_b \).

- The two figures calculated by TSO X and TSO Y are unlikely to be the same.

- Specification and choice of pressures \( P_a \) and \( P_b \) are within each TSO’s discretion. Differing PSO criteria may influence each of these. \( P_{\text{max}} \) and \( P_{\text{min}} \) may be the result of commercial rather than strictly technical assessments.

- TSO X may have specified \( P_{c\text{max}} \) on the basis of an average winter’s day (all compressors running, but moderate demand). \( P_{c\text{min}} \) for TSO X may occur on a peak winter day (which may depend on its PSO criteria) or on a summer day when compressors are off.

- TSO Y may have accepted \( P_{c\text{max}} \) simply on the basis of it being within the design pressure limit of its pipeline. \( P_{c\text{min}} \) will have been specified on the basis of the chosen pipe diameter, maximum values of \( P_b \) on peak demand days (which again may depend on the PSO criteria) and the known and forecast contractual gas flows at the time.

There needs to be a transparent statement on the basis of assumption of \( P_a \) and \( P_b \), including a shared calculation of the resultant flow capacity from Node A to Node B. There may need to be different figures depending on seasonality (e.g. maximum capacity might occur in summer). Contractual and TSO-to-TSO arrangements at cross-border point C may need to be adjusted to be consistent with the above (e.g. to limit the minimum pressure \( P_{c\text{min}} \) to summer months only).