



GTE Report

Security of Natural Gas Supply

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Ref.
02SOS199–final

Introduction

The issue of how to ensure security of supply in a liberalised European gas market is on top of policy makers' agenda both at the national and European levels. GTE have long argued that the need to maintain reliable and safe supplies to European customers is one of the most important aspects that should be taken into account when designing the framework for gas market liberalisation in Europe. With this in view the purpose of this paper is to:

- Set out the issues with regard to security of supply from a gas transporters' perspective;
- Set out a number of high level, generic principles which from GTE's perspective should guide any future EU initiative in this area, particularly with regard to the respective roles and responsibilities of market players in ensuring the European long-term security of gas supplies;
- Thereby lay the foundations for a future work programme in the area of security of supply to be agreed with the European Commission and the Madrid Forum.

1. What is security of supply

From a gas transporters' perspective security of supply touches on three key aspects:

- Gas availability: The availability of adequate gas supplies (including from storage) to meet firm demand for gas under both average and extreme conditions;
- Adequacy of the gas network: The availability of adequate transportation capacity to meet gas demand under both average and extreme conditions;
- System integrity, i.e. safeguarding the end to end operational integrity of the system.



It is important to note in this respect that unlike electricity supplies, unforeseen (even if only temporary) interruption of gas supplies may be hazardous. In fact after a supply disruption, the supply to each consumer must be reinstated separately and safely – a process which, on anything but a small scale, requires considerable resources and time.

All of the three above factors – gas availability, adequacy of the network and system integrity – have to be ensured for security of supply to be maintained both in the long- and short-term. The degree to which they influence the short- and long-term security of supplies varies from Member States to Member States, depending on specific national circumstances.

Although GTE takes a direct interest in supply security as a whole, this report will focus on those areas which gas transporters have a direct influence on.

2. Roles and responsibilities for security of supply in a liberalised gas market

In a liberalised market the responsibility for maintaining supply security cannot lie with one single market player. Moving forward, the respective roles and responsibilities of different market players need to be clearly defined and allocated. In GTE's view they should be as follows:

- To ensure there is sufficient gas (both in terms of production-capacity and volume). This responsibility clearly lies with suppliers and producers. This includes the responsibility for sufficient supplies for extreme low probability events;
- To ensure there is sufficient transportation capacity. This responsibility lies with the TSOs and shippers. Each TSO has to provide transportation capacity to meet his contractual obligations and, where applicable, nationally agreed safety/resilience standards. To enable TSOs to do this, suppliers have a prime responsibility in signalling their future capacity requirements by revealing their real demand for capacity to meet their customers' needs under both average conditions AND in the case of low probability events. This is to ensure that the planning of the network is primarily market-driven;
- To ensure system integrity is maintained. This responsibility lies with TSOs. In order for the TSO to be able to take responsibility for system integrity, it must be made very clear that the balancing of supply and demand portfolios is the responsibility of shippers and/or suppliers.

3. Requirements to ensure that security of gas supplies can be maintained in a liberalised market

It is widely recognised that to date the European gas industry has maintained an excellent track record in ensuring the security of gas supplies. As the European Commission itself recognises in its recently published proposal for a Directive concerning measures to safeguard security of natural gas supply, "the European gas industry has managed security of supply in a steadily growing European gas market over the last four decades very successfully." To maintain the current high level of supply security it will be essential that any future framework meets the following key requirements:

- (a) Adequate investment in gas transportation infrastructure should be encouraged.

This requires in particular:



- A predictable, transparent and stable legal and, where applicable, regulatory framework;
- A framework that adequately rewards transporters for the investments they make in existing and new infrastructure and the risks they assume;
- The recognition of the importance of real long-term contracts for both suppliers AND transporters;
- The clear recognition that any future investment framework should be as market driven as possible.

(b) Adequate levels of resilience in gas networks have to be maintained.

For long-term security of supply to be ensured it is essential that the necessary infrastructure is in place for gas to be deliverable not only under conditions of average demand but also in the case of low probability events (e.g. supply interruptions from one source; severe weather conditions).

The key issue in this respect is if and how gas transporters receive the necessary signals for investing in such capacity and how these investments are funded, taking into consideration the following factors.

- In a market with a multitude of competing suppliers, some shippers or suppliers may not be sufficiently incentivised to make adequate ‘insurance’ provision for low probability events and may therefore underestimate capacity needs for new infrastructure. Consequently, transmission companies may not receive the signals and funding for making the necessary investments to cope with extreme conditions.
- The same potential problem applies regarding bookings of existing infrastructure. In the past, gas transmission companies across Europe have put in place adequate levels of resilience as a safeguard against low probability events. Due to competitive pressure some shippers may be incentivised to reduce their capacity booking on existing grids assuming a peak or supply interruption will not occur.
- Moreover, under a regulated approach TSOs could face a significant problem in determining how to plan and finance ‘insurance’ investment, especially in a world where there is uncertainty as to where gas will be put into the system. Regulators may be reluctant to allow for ‘insurance’ investments to be included in the regulatory asset if their assessment is exclusively based on considerations of economic efficiency. On that basis, unless suppliers and/or distribution companies effectively book capacity for low probability events, transporters face the issue of how to provide insurance investment.
- Another factor is the fact that liberalisation may lead to a larger proportion of short-term transportation contracts. This makes the planning of long-term strategic investment more difficult, especially given the long-lead times for the development of new infrastructure.
- It is sometimes argued that those customers who want higher levels of supply security will express their demand and pay accordingly. Although this may apply to big interruptible customers it does not hold true for the small customer market where networks typically cannot



discriminate between network users, i.e. deliver different security levels to different points of off-take.

Consequently, it is important to recognise that regardless of what specific regime applies gas transmission companies face significant planning, investment and stranding risks in a liberalised market. Hence the need for a framework that establishes minimum output standards and ensures that suppliers reveal their real demand for capacity under both average AND extreme conditions.

In GTE's view, security standards should be purely output based, i.e. prescribe the level of insurance to be achieved rather than how to achieve it. The means of achieving security standards should be left to Member States and ultimately to the market, provided that TSO's shall be able to recover the costs arising from any new investment or expenses required to meet the standards.

(c) Roles and responsibilities in maintaining the operational integrity of the gas transportation system need to be clearly defined.

It should be avoided that shippers rely on transporters' balancing of the system in order to balance their portfolios. Hence transporters' responsibility to maintain system integrity should not be confused with shippers' responsibility to balance their supply/demand portfolios.

This must be ensured by agreeing a clear and consistent framework for balancing, including adequate incentives on shippers to balance their portfolios. Similarly, transporters' responsibility for the balancing of the system may be abused in the case of supplier bankruptcy. Clear mechanisms should be developed to avoid this.

4. Summary of recommendations

In the light of the above GTE would like to make the following key recommendations in the area of supply security:

- To develop a clear and transparent framework at the national level to ensure sufficient capacity is in place and adequate capacity bookings are made in national networks. Any framework developed on that basis should be as market driven as possible i.e. leave it to competitive forces to decide on the most efficient way of delivering the desired outcome.
- To this effect the said framework should establish minimum output standards and ensure that suppliers reveal their real demand for capacity in gas networks to ensure deliverability under both average conditions AND in the case of extreme events.
- In this governance framework it will be gas transporters' role to plan and build transportation capacity principally on the basis of contractual signals received by suppliers and/or local distribution companies and to agreed safety standards. This does not exclude the possibility of large customers assuming responsibility for their own security of supply.
- GTE is willing to work with other relevant stakeholders, national regulators and governments in defining the requirements of such a framework.



- To create/maintain a healthy investment climate for network investment mainly by:
 - ensuring that transporters are adequately rewarded for the investments they make in existing and new infrastructure (reflecting the level of risk involved);
 - recognising the importance of long-term contracts for both suppliers AND transporters (including, where necessary, LNG facilities);
 - maintaining a predictable, transparent and stable legal and, where applicable, regulatory framework.
- To develop a clear framework for creating adequate incentives for transporters to maintain system integrity and for shippers to balance their supply/demand portfolios.
- To clearly allocate responsibilities in the case of supplier bankruptcy. Here again, GTE members are willing to co-operate in the elaboration of appropriate national solutions.
- To put in place (or adapt existing) contingency arrangements to deal with supply disruptions under emergency conditions;
- Finally, to promote a political environment which fosters dialogue between the EU and the main non-EU producing countries. For example, the Energy Charter Treaty's proposed transit protocol is an initiative that would facilitate investment in transmission infrastructure, protect the sanctity of transmission contracts, increase the transparency of transit rules outside the EU and therefore should be encouraged.