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Executive Summary

The European gas infrastructure operators are actively facilitating the development of a single European gas market within the objectives of the Internal Gas Market Directive (“IGM Directive”) and the complementary voluntary Guidelines developed at the Madrid Forum. We have made significant progress, but realise that more needs to be done and quickly. We are therefore taking the necessary steps in close cooperation with all industry stakeholders to improve the functioning of the market.

In our opinion policies are already in place which, when fully implemented, effectively deliver the internal market in natural gas. This applies to the existing legislation as well as to existing voluntary agreements. The industry has gone through an enormous change and we believe it is time to focus on the pragmatic implementation of the existing policy measures and allow them time to work.

Behaviour does need to be monitored to ensure compliance with these policies but that can only be truly representative if conducted at appropriate stages after implementation deadlines. Where improvements to existing policies are required, these should be developed with full industry participation. The Madrid Forum provides an excellent platform for this process.

The main challenge for the European gas market moving forward will be to ensure that the regulatory environment stimulates investment to meet the growth in demand and the changing supply pattern, whilst supporting market liberalisation. The key principles needed to deliver this are:

1. Respective roles and responsibilities should be clearly and appropriately defined and allocated to the different market players, especially to ensure security of supply.
2. Where possible, the need for new infrastructure should be determined through market signals, underpinned by binding financial commitments.
3. Appropriate funding arrangements should be in place to underpin infrastructure operators’ investments. These arrangements should ensure that the investment environment is predictable, stable, commensurate and complete. Such arrangements

should allow infrastructure operators to innovate and plan effectively, to attract the capital required and to deliver efficiency improvements over time.

4. The significance of pan-European investments and large infrastructure projects should be recognised and facilitated, either through project-specific long-term regulatory arrangements or exemptions from the TPA provisions of the IGM Directive. With regard to determining the regulatory treatment of existing transit infrastructure, the competitive nature of the activity and the differences between transit and national transportation services, need to be closely examined on a country by country basis.

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1. Introduction

Gas Infrastructure Europe (GIE) welcomes the opportunity to contribute to the DG TREN report on the impact of the Gas Directive. GIE is the association of gas infrastructure operators in Europe, representing the interests of transmission, Liquefied Natural Gas (LNG) and storage operators. GIE currently has 47 members in 26 European countries. GIE's main objective is to contribute to the achievement of an efficient Internal Gas Market.

Gas to gas competition in Europe is principally the role of companies involved in the production, trading and supply of natural gas. In this respect, the role of infrastructure operators is to facilitate the competition by ensuring fair and non-discriminatory access conditions. This distinction is reflected in GIE's contribution, which focuses on our areas of influence and impact as infrastructure operators.

2. General Aspects of the Evolution of the European Gas Market

2.1. Current and likely future developments

The supply and demand patterns in Europe are undergoing a period of significant change. On the supply side, the European gas industry is experiencing a period of declining indigenous reserves and correspondingly an increase in gas imports. The imported gas has to be transported over long distances, principally by pipeline, but also to a lesser extent by LNG ship. To optimise the use of existing and new European pipelines and to ensure levels of security of supply are maintained, the importance of existing and new storage facilities is growing.

Demand for gas is anticipated to grow on average by 1.8% per annum until 2030¹. Much of this growth is forecast to come from power generation, which will have a considerable impact on the pattern of demand and the degree of coupling between gas and electricity spot prices. Until recently, in the majority of countries aggregate demand has been relatively predictable and weather dependent. In contrast gas consumption for power generation can be less predictable as it is dependent upon a range of factors, including plant economics, political choices about nuclear power production and the prospective balance between electricity supply and demand.

Consequently, the natural gas demand will fluctuate significantly more than compared to its current dynamics. Therefore to maintain system security an increasing availability of flexibility mechanisms will be required.

The first category of flexibility instruments includes technical investments in:

- system facilities such as underground storage and peak shaving LNG plants;
- larger diameter pipelines;
- interconnections between different markets / hubs.

The second class of flexibility mechanisms is trading-oriented. In the short run, their principal aim is to limit price volatility, avoiding especially sharp and unexpected rises.

¹ International Energy Agency, World Energy Outlook 2004, p. 153

Partly this may be achieved by demand-side management, such as interruptible customers. A more general direction to follow for reaching this goal is the development of “on the day commodity market” (OCM) and “over the counter” (OTC) markets and the related build up of a series of financial trading instruments (forward, options, swaps and financial derivatives). Trading across Europe is increasing: hubs will play a pivotal role in this development. In the long run, a net benefit to the system as a whole would be the emergence of authentic gas prices that would indicate the scarcity of the commodity and guide future investment.

The principal impacts of these developments on infrastructure operators are an escalating need for both asset investment and for sophistication in network management. To meet the growing gas demand in Europe and enhance the security of supply, large international infrastructure projects (pipelines, LNG and storage facilities) will be necessary to connect Europe to new natural gas sources. In terms of total investment it is estimated, for OECD Europe, that more than 200 billion € in new infrastructure (excluding exploration and production) would be required to 2030². However, if and where this investment is made will strongly depend on the investment climate at European and national level. This point will be elaborated upon later.

With regard to the sophistication of network management, it is important to acknowledge the specific characteristics of natural gas. Firstly, the composition and the calorific value of natural gas depends upon the supply source. Due to safety and technical reasons it is not always possible to interchange gas from different sources. Secondly, a growing proportion of the gas consumed in Europe is transported over large distances, at present approximately 65% crosses at least one EU border (compared to less than 10% in electricity). These characteristics present unique interoperability challenges that do not exist for other energy forms. Furthermore natural gas demand is seasonal in nature, and linked to climatic data, therefore the industry needs to manage the large swings between summer and winter demand, using tools such as storage, production-swing and interruptible customers.

To manage the aforementioned complexity, infrastructure operators and the market in general have a growing need for timely physical and commercial data. Investments in metering and measuring equipment and the associated IT systems are fundamental to market liberalisation, in order to ensure that commercial processes are robust and security of supply is maintained. The transaction costs and the lead times for this infrastructure should not be underestimated.

2.2. Improvements of the market opening framework at national or EU level

GIE believes that through a combination of the IGM Directive and Madrid Forum initiatives, the framework is in place to ensure efficient, non-discriminatory and transparent access to infrastructure. In our opinion, it is now necessary to have a period of legislative stability in order to enable the implementation of the current framework and to monitor its effectiveness. We also believe that it is of paramount importance to consider whether legislation or voluntary agreements are the most appropriate way forward, whilst detailed legislation ensures compliance, its creation and modification is a lengthy process, which is not always best suited to the changing market dynamics.

² International Energy Association, Natural Gas Information, p. I.3

Any further improvements required to the overall framework, in GIE's view are best addressed via the Madrid Forum, where all industry participants come together to exchange views and reach agreement. Although big steps have been made in the recent past GIE is aware that improvements in the practical implementation of the existing framework are possible. Therefore we are currently discussing among our members and with other stakeholders how to further meet their needs within the current rules. This will result in contributions within the Madrid process on:

- First monitoring of GGPSSO; a presentation on the implementation by storage system operators of the GGPSSO agreed in March 2005;
- Balancing; a paper which investigates the issue of transporting gas between transmission system operators utilising different balancing regimes;
- Interoperability; updates on the progress of GIE members in developing and implementing the European Association for Streamlining Energy Exchange – Gas (EASEE-gas) Common Business Practices (CBP), with particular emphasis on the harmonisation of gas quality;
- Transit; a paper considering the specific aspects of transit and the similarities and differences between various types of transit and national transportation;
- LNG business rules; a paper on the business rules to be adopted by terminal operators;
- Monitoring of GGPII; an update on the implementation of the GGPII, with specific emphasis on the offering and utilisation of the specified services;
- Capacity routes; an investigation into five European routes, focusing on the calculation and publication of technical and available capacities along the routes;
- UIOLI principle; a paper setting out GIE's position on the issue of Use-It-Or-Lose-It;
- Security of Supply; a paper focusing upon the key principles that are required, in GIE's view, from any regulatory regime in order to foster new gas infrastructure investment.

GIE's members are also actively participating, with other segments of the gas industry, in EASEE-Gas to address operational issues on a voluntary basis. EASEE-Gas developments, such as the draft CBP on harmonisation of gas quality specifications, will make a real and tangible impact on the achievement of a single European gas market. However, in order to facilitate the adoption of the CBPs, Member States should ensure that no legislative obstacles exist.

2.3 Reinforcement to measures to protect the interests of customers

A key issue in protecting customers is ensuring that roles and responsibilities are clearly defined and allocated within the new liberalised markets. Previously, in many EU countries, integrated undertakings developed the network, contracted for supplies and had the overall responsibility for security of supply. As markets become increasingly liberalised, a framework needs to be established to ensure that none of the former roles performed by the integrated companies 'fall between the cracks'. In particular it must be ensured that such frameworks deliver security of supply under extreme conditions. The framework should contain sufficient incentives for the relevant market players. The

Security of Supply (SOS) Directive provides for the definition of security of supply standards and the allocation of roles and responsibilities. Therefore GIE welcomes the SOS Directive and looks forward to its implementation in each Member State.

It is also important for the Commission and national authorities to assess the total needs of customers. As infrastructure providers, we see a strong emphasis from authorities on cost reduction; however this must be balanced with maintaining service quality and reliability as well as network integrity. We need to ensure that we do not push for short-term gains at the expense of the long-term future of the gas industry. As the European Commission itself recognised in developing the 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.”* The authorities, to ensure a further forty years of secure and safe gas supplies, should build upon this success.

3. Specific Aspects of the Evolution of the European Gas Market

Below are GIE’s comments on the specific measures to be considered in monitoring the progress of the Internal Gas Market Directive (2003/55/EC), as set out in Article 31 paragraph 3. As stated previously, the role of infrastructure operators is to facilitate gas to gas competition; therefore our comments are limited to criteria relevant to GIE.

3.1. Existence of non-discriminatory network access

The Directive sets the high level framework for non-discriminatory access. This is supported by the Guidelines for Good Practice on access to transmission and storage (GGPII and GGPSSO) as agreed at the Madrid Forum, providing a comprehensive framework for the delivery of non-discriminatory access. The key aspects of the GGPII will become legally binding when the Regulation on conditions for access to the natural gas transmission networks adopted by the EU Parliament in March 2005 enters into force. The timescales and requirements set within the Directive and the Guidelines are rightly ambitious and GIE is encouraged by the progress made by its members in meeting these. However, challenges still remain and these should not be underestimated.

For many countries, particularly new Member States, the market rules relating to network access are still in development. This is a process that typically involves all industry stakeholders and to a large extent is dependent upon the transposition of the Directive into national legislation. Until some degree of completeness and stability of the market rules and regulatory framework is reached, it is not possible to specify the necessary IT systems and develop the supporting detailed processes. This represents a significant issue for market liberalisation, however it is necessary that the time is taken to ensure that the market rules and regulatory framework are robust and sustainable.

3.2. Effective regulation

From GIE’s perspective, policy setting needs to remain clear and transparent. We need to establish if issues can be / are being effectively dealt with under voluntary practices or if legislation is really required. The first question to be asked should be: Does this activity need to be regulated and if so how? Infrastructure provision and operation is not by default a monopoly activity. Negotiated storage access is allowed within the Directive and new

infrastructure can obtain exemptions from regulation via Article 22. There are a number of examples, throughout Europe, of pipe to pipe and increasingly pipe to LNG supply route competition. In these cases the need for regulation needs to be carefully considered. Excessive regulation may discourage investments, especially if there is a requirement to offer short-term third party access, with no certainty of demand and no guarantee that the costs of any unsold capacity can be recovered within regulated tariffs. Such disincentives may well put at risk security of supply and the further development of the liberalised gas market.

GIE strongly believes in voluntary agreements rather than prescriptive rulemaking. GIE supports the Madrid Forum process and sees this engagement of industry stakeholders, alongside CEER, as crucial in discussing and reaching consensus agreements. The participation of industry is necessary to ensure the unique characteristics of gas markets are taken into account and that the legislation and policies developed are appropriate. Therefore we believe that the modification procedure for Regulation Guidelines should contain the advice of a formal independent advisory body formed from European Infrastructure Operators.

Monitoring of the implementation (even of voluntary guidelines) at appropriate intervals is essential; however the implementation timetable and the date at which the legislation was adopted need to be considered. If monitoring reports indicate areas of non-compliance, these areas should be investigated, as it may be the case that the needs of the market have changed and therefore adjustments to the policies are required. Adjustments are much easier to realise through voluntary practices, rather than binding regulations.

To ensure that the gas networks and infrastructure are developed to meeting the challenging needs of the gas market, regulatory regimes need to be:

- Predictable
To avoid undue risk, infrastructure operators and other investors must be assured of the principles behind regulatory treatment for the economic life of the asset. Based on these principles the investment partners can assess the risk profile of the project and determine its viability. If at a future date these principles are changed, there should be a clear process to evaluate the change, which considers the impact upon the affected parties. The process should also include an appeals mechanism for affected parties who believe their interests have not been appropriately addressed.
- Stable
To provide scope for infrastructure operators and other investors to innovate and plan effectively, regulatory regimes should not constantly change and where possible this principle should be recognised explicitly through fixed periods of stability. Regulatory cycles of five or more years enable infrastructure operators to actively manage the investment process and deliver efficiency improvements, for example through optimisation of the procurement and construction supply chain.
- Commensurate & Complete
In establishing the regulatory framework it is essential to ensure that it is complete and reflects the risks to which investing companies are exposed. It must take account of policy, legislation and fiscal regimes at national and European levels. It

should also recognise the interaction of European markets and the competition for capital within these markets.

Where a regulatory authority is responsible for determining economic criteria (for example rate of return, operating cost allowances and asset life assumptions), which influence the overall viability of new infrastructure investment, these criteria must provide sufficient incentive in relation to the risk for the investing company to make the investment. The criteria included also have to be complete or else they will not fully reflect the risks to which the investing company is exposed. For Transmission System Operators (TSOs), in particular, regulatory authorities should have a clear duty to ensure TSO functions are appropriately financed.

3.3. Development of interconnection infrastructure, the conditions of transit, and the security of supply situation in the Community

Security of supply has been successfully maintained by the European gas industry for over 40 years. Investments have been made in a timely manner to ensure supply and demand are kept in balance. In the past this investment has been undertaken on the basis of long-term contracts, which provide the necessary guarantees for all parties involved. It is difficult to imagine that the huge investments required in gas infrastructure, in the next few decades, would be possible without the support of long-term contracts. As infrastructure operators, we are keen to facilitate the development of a single European market and therefore offer services to assist new market players and improve the liquidity of pipeline capacity, examples of this are Use-It-Or-Lose-It procedures, secondary capacity markets and interruptible capacity.

With regard to determining the future needs of the gas industry, we believe the market is best placed to assess this. Therefore we advocate investment based on financially binding market signals. In terms of large supply projects and infrastructure of a competitive nature, for example transit pipelines, the investment decisions should be a result of economic analysis. However for such projects there needs to be clarity on the risks to which the parties are exposed, any measures that can be adopted to reduce these risks will be important in improving the viability of such projects. This may be through Article 22 IGM Exemptions or alternatively via entering into project-specific long term regulatory arrangements. Again the principles which investors are looking for are predictability, stability and frameworks which are commensurate and complete. As infrastructure operators, we see considerable inconsistency in the effort required in achieving these principles and the application of the measures available, for example Article 22 IGM Exemptions, between Member States and categories of infrastructure. This is an issue that should be addressed in order to provide the necessary framework. Providing this framework exists, infrastructure operators are confident that Europe will experience another 40 years of secure supplies.

As discussed previously, 65% of the natural gas consumed in the EU crosses at least one EU border and this percentage is set to grow, therefore the issue of transit is of high importance. However, it is wrong to assume that all transit is the same: there are significant differences throughout Europe. At one end of the spectrum there are dedicated transit pipelines, whilst at the other end transit accounts for a small percentage of total flow within integrated networks. Due to this high degree of variation and the fact that a number of these transit routes compete with each other and other supply routes, for example LNG, it is

difficult and in GIE's view inappropriate to have a single European approach to transit (see GTE Transit Report). As national authorities address the issue of transit, consideration needs to be given to the competitive dimension and the differences between the transit and national transportation service. Based on a full analysis of these factors an appropriate treatment should be devised, which in a number of cases will differ from that applied to national transportation.

3.4. Effective and non-discriminatory third party access to storage

The Guidelines for Good Practice for Storage System Operators (GGPSSO) was agreed in March 2005. This voluntary agreement, which is being implemented by the GIE/GSE members, provides a consistent approach to the implementation of the high level principles contained within the Directive. It is now necessary to monitor the effectiveness of the GGPSSO. However the monitoring needs to take account of the status of the individual markets and recognise the challenging nature of the implementation timetable. Many of the services that the Storage System Operators would like to offer will require investment in systems and consultation with storage users to ensure that efficient access is provided.

3.5. Unbundling

The unbundling requirements for the different categories of infrastructure operators, represented by GIE, are defined within the IGM Directive and further helpful clarifications exist within the respective Guidelines for Good Practice. These provisions we feel are adequate to ensure effective independence. It should be realised that the cost and time as well as the organisational changes required to achieve legal unbundling are extensive and therefore it should be ensured that the rewards are commensurate with the outlay. This issue will be particularly relevant to the unbundling of distribution companies and we believe the Authorities need to take a pragmatic view and ensure that the cost / reward balance is correctly struck.