STRATEGIC IMPACT OF REGULATION AND UNBUNDLING
ON GAS TRANSMISSION WITHIN THE EUROPEAN UNION

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ABSTRACT

Regulation plays a major role in how the European gas market develops. The division of integrated gas companies in particular has had a deep impact on the structure of the current EU-25 gas market. Full unbundling creates independent transmission companies that have the ambition to increase their growth rates and market share, not only by increasing their domestic transport activities but also by expanding international activities. This will, in turn, affect the market position of other transmission companies. In this new context of independent transmission companies, pipeline projects must be profitable stand-alone projects since they no longer form an integral part of a long term gas-trading contract.

In principle, unbundling ties in with the policy intention of opening up the gas market for third party access and increasing market liquidity. Unbundling is considered to be one of the pre-requisites for non-discriminatory market access and market transparency, both necessary to establish a well-functioning competitive gas market. It thereby increases competition within the gas market, both for commodity trading and for transport alternatives. Competition provides an incentive for transmission companies to improve their efficiency, improve their customer focus and set conditions of international competing services at a competitive level. Due to the new market structure, transmission services related to international gas flows (e.g. transit and LNG) compete at international level. This requires a well functioning single European gas market. In order to achieve level playing field within the EU, at least two things must be in place: national authorities should take account of the international playing field on which national companies operate when formulating and implementing national regulations. Secondly, EU authorities should supervise on compliance with EU regulation and legislation and the level playing field in national legislation and regulation.

Differences and changes in both national and international regulatory regimes influence the economic projections of new investments. It thereby affects the development and timing of new strategic transmission infrastructure projects and hence the competitive position of one transmission company to another. Infrastructure projects could well be delayed and could even be cancelled as a result of shifts in e.g. regulated tariffs or other access and contracting conditions. Sufficient and accessible transport capacity which allows market parties to anticipate surpluses and shortages in the gas market, is another pre-requisite for market competition. This, together with the necessity to extend the grid to enable new gas flows in view of the expected rise in market demand and expected decline in European production, requires a stimulating EU investment climate. The European Union is now somewhere halfway towards a process to achieve a single EU gas market, however difference in pace and the extend of market development in different Member States have resulted in market distortions in both the transmission and the commodity market. These distortions could have a decelerating effect on the development of the EU transmission market and new investment projects in particular, since it restricts independent gas transmission and trading companies in their ambition to reach their full potential.
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2. INTRODUCTION

At the start of the liberalisation and regulation process, the members of the European Union set a clear objective: establish a single, transparent, liquid and efficient European (EU) gas market. The assumption is that this will attract new supplies and enable suppliers to compete for market share. A single EU gas market would result in lower prices for end users, reduction of price instability and enhancement of security of supply.

First, opening of the gas market for new entrants increases competition on the gas supply side, this may result in lower consumer prices. This downward pressure on prices will force market parties to work more efficiently and to increase customer focus.

Secondly, competition enables linkage of different gas markets and thereby has a stabilising effect on prices. If full competition is in place, investors and traders can and will take advantage of price differentiation between markets. Because traders will immediately react to these arbitrage opportunities, gas prices of different markets will converge and become more stable.

Thirdly, market liberalisation is supposed to increase security of supply. Free access and market competition allow traders to react to price signals. In cases of shortfalls in gas supply, prices will rise. Because competition links different gas markets, this higher price will immediately attract gas from other markets and thereby enhance short term supply.

These could be the outcomes of a well functioning single EU gas market, but how does one create a single EU gas market? In order to establish a well functioning single EU gas market, at least two things must be in place: non-discriminatory third party access to the transmission systems and sufficient transmission capacity. Unbundling is generally acknowledged to be one of the pre-requisites for non-discriminatory market access and market transparency. Sufficient transport capacity which allows traders to anticipate surpluses and shortages in the gas market, is a second pre-requisite for market competition. Both pre-requisites are necessary to create an attractive market for suppliers to compete for market share. This paper will provide some insight into the process and the status of the liberalisation and regulation regime, and its effect on the EU gas transmission market.

3. BRIEF OUTLINE OF THE EU REGULATION PROCESS

3.1 LOOKING BACK

The first formal step in the liberalisation process was taken on 22 June 1998 by the adoption of the first Directive (98/30/EC) by the EU Parliament and the EU Council. This Directive sets out the common rules concerning for the internal market in natural gas. On 26 June 2003 the EU Parliament and the EU Council adopted the second Directive (2003/55/EC) concerning common rules concerning the internal market in natural gas and thereby repealed the first Directive. The second Directive in particular provided the right for all non-household gas customers to choose their supplier freely as of 1 July 2004 at the latest and for all customers to have this right by 1 July 2007. Amongst other things, it lays down detailed rules on the organisation and functioning of the natural gas sector. Where the transmission or distribution system operator is part of a vertically integrated undertaking, it must be independent, at least in terms of its legal form, organisation and decision making, from other activities not relating to transmission or distribution. Most Member States missed the deadline of 1 July 2004 for the implementation of the second gas Directives. In most Member States the legislation implementing the directives has been in force for less than a year and some Member States have not yet implemented the directives at all (Brussels, 15 November 2005, Report on progress in creating the internal gas and electricity market).

In addition to the Directives, the Commission launched the Madrid process, a forum comprising the Commission, national regulators, Member States and industry. On 8 February 2002 the Madrid forum
had come to a set of recommendations on guidelines for good practice in relation to third party access services, the Guidelines of Good Practice (GGP). While the recommendations on guidelines for good practice were the result of a voluntary agreement by all market parties, they have been intended to contribute in the short and medium term to achieving a fully operational internal market for gas. The Commission presented a first overview on the compliance with the Guidelines for Good Practice in October 2002. It demonstrated considerable progress in implementing the guidelines but it also revealed a lack of compliance as well as uncertainty and differences in compliance. Based on the outcomes of this report, the Madrid Forum agreed on a second voluntary set of guidelines as at 24 September. Both the Directive and the GGPII are of crucial importance for third party access. In reaction to the outcome of the second compliance report and because TPA to gas transmission networks is seen as a basic requirement for market liberalisation the EU council has set the voluntary guidelines (GGPII) into EU regulation. The EU Council published its common position for regulation on conditions for access to the gas transmission network on 16 November 2004.

3.2 CURRENT SITUATION
The EU model and the implementation process have shown important differences with other internal gas markets, e.g. the United States of America. The EU liberalisation process has been initiated by the EU Council but is implemented and elaborated by different bodies: the European Union (i.e. the EU Council, the EU Parliament and the EU Commission) the group of EU energy regulators, national regulators and national governments. The EU Commission has created a framework of Directives and guidelines to achieve a single EU internal gas market. This leaves a degree of freedom for national authorities, called subsidiarity, to implement the EU directives into national law and the EU guidelines into national regulation. On one hand national authorities should be able to implement the EU directives and guidelines in a way that fits with the specific national circumstances since there potentially are huge differences in market development between Member States. On the other hand, national regulators must be well aware that these differences potentially raise hurdles for new entrants to gain access to transmission systems and for traders and suppliers to bring gas from one member state to another. Contrary to the US the EU Commission has not installed a single body to supervise the implementation process and to assess national regulation against the well-functioning of the EU market model. National regulators still tend to view the gas transmission market as a national market and treat transmission companies as national monopolists instead of companies competing on a EU transmission market. This, together with the different views of national authorities at the pace at which a single EU gas market should be achieved, has created a framework in which it is hard for the EU Council to control the process. The EU is now somewhere halfway towards a process to achieve a single EU gas market, however differences in pace and the extent of market developments in different Member States have resulted in different market conditions that undermine the well-functioning of the EU gas transmission market. These distortions have a decelerating affect on the development of the EU transmission market and new investment projects in particular and thereby restrict both independent gas transmission and trading companies in their ambition to expand their market.

All the above mentioned factors, the implementation process via Directives and guidelines, the lack of EU supervision on national regulation, the absence of a collective European political drive to open national markets, the market approach of national regulators and the growing geopolitical dimension to gas supplies have resulted in considerable differences between Member States. The original model for the EU internal gas market did not foresee the impact of supply issues on the energy policy of different Member States. Recent supply issues between Gazprom and the Ukraine have increased the geopolitical dimension in the energy policy. These issues raise the question on whether all Member States still want to achieve a single European gas market and how to proceed. Will the unbundling
process continue within the European Union, or will it be stalled? Delay, or perhaps even cancellation would not only keep fully unbundled companies in a disadvantageous position compared to integrated companies but also means that current market distortions will remain.

4. EFFECTS OF REGULATION ON THE GAS MARKET

4.1 POTENTIAL BENEFITS

Regulation has changed the landscape of the European gas market. In some Member States it has resulted in unbundling of integrated gas companies into separate gas trading and gas transmission companies. In principle, unbundling ties in with the policy intention of opening up the gas market for third party access and increasing market liquidity. It enables competition within all facets of the gas market, i.e. the trading, the transmission and the flexibility market. As a result of the second Directive, the amount of companies with activities only in the infrastructure business has increased rapidly over the past years. Unbundling is generally seen as one of the pre-requisites for non-discriminatory market access and market transparency, both necessary to establish a well-functioning competitive gas market. However, currently only four Member States within the EU 25 have established full ownership unbundling of trading and transmission activities1. Within integrated companies, transmission investments result from, and aim to support market activities and the market position of the trading division. Additional capacity and services available to third parties, primarily are not in the interest of the trading division and the integrated company as a whole since this allows new market players to enter the market.

Unbundling has a deep impact on the strategic and operational management of former integrated transmission companies. It changes the perspective towards new entrants from competitor to potential customer. Fully unbundled transmission companies benefit from non-discriminatory third party access to their gas transmission networks since it enables them to attract new customers. With transparent and new services and an open transmission system, new suppliers have the opportunity to enter the market. Additionally, infrastructure projects owned and operated by independent transmission companies can provide services without requiring large investments for other market parties. Transmission companies can thereby overcome financial hurdles preventing new market players from entering the market, and thereby foster competition at national and European level (e.g. with access to LNG terminals and storage facilities).

Fully unbundled transmission companies will have the ambition and the ability to maintain and expand their current position. With downward pressure on tariffs for regulated services, transmission companies are forced to increase their efficiency in order to remain profitable. But it also encourages them to develop new and profitable services that foster market competition. This has resulted, amongst other things, in new services to attract customers and additional transmission flows through their transmission system (e.g. hub services, on-line information and booking services and increased variety in contract duration).

In matured gas markets, growth can mainly be created by attracting additional international gas flows to and through their grid. These additional flows will partly follow from the expected change in the EU demand and supply situation but will also follow from competition on existing flows. The services related to international gas streams, compete on an international transmission market (e.g. pipe-to-pipe competition on transit routes, the landing of LNG and trading hubs). The increased emphasis on international competing services due to the growth ambitions of the unbundled transmission companies, force these companies to increase their customer focus at both national and international level.

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4.2 POTENTIAL DOWN-SIDES

The liberalisation and regulation process in the EU has created differences between Member States. Differences in pace of implementation of EU Directives into national legislation and guidelines, frustrate market opening instead of facilitating an international transmission market. Opening up the EU gas market should result in an level playing field internationally for both transmission and trading companies. This requires national regulators to give up their national perspective and recognise that the gas transmission market has level playing field within the EU for internationally competing services. However, national regulators tend to view all transmission activities as monopolistic. They therefore also tend to regulate activities which are competing internationally the and fo not to be to regulated from a EU market perspective (figure 1).

![Figure 1: Example of a new pipeline project competing with existing infrastructure.](image)

Sufficient and accessible transport capacity which allows market parties to anticipate surpluses and shortages in the gas market is one of the pre-requisite for market competition. Reactions to price differences in different regions will potentially result in large additional gas flows to bring gas from one region to another in order to take advantage of arbitraging opportunities. This requires an extensive EU transmission system with international connections and ample capacity. Regulation for internationally competing services, makes it less attractive for transmission companies to investment in these services. Regulation potentially influences the conditions, e.g. contract duration and tariff setting for the new infrastructure services and thereby forms a potential risk for the economic feasibility of the project. Regulation could thereby hamper the expansion of the EU transmission network which is not only necessary to establish a well-functioning EU gas market but is also required to anticipate future gas flows. National regulators should aim for a regulatory framework in which the old national monopolist can act as one of the many EU competitors.

Apart from the effects on transmission activities, unbundling of integrated companies has resulted in a complex and less effective setting to close new supply contracts, especially with non-EU suppliers. The unbundling of potential EU partners into separate transport and trade companies hinders non-EU gas suppliers in their conclusion of new supply contracts. Instead of negotiating with integrated companies, able to close both the volume and the transmission contract, suppliers now need to close contracts with different parties that possibly have different interests. On top of that, suppliers may be hindered by differences in national regulation resulting in different market conditions. Suppliers will
prefer to close long term capacity contracts in order to secure transmission capacity from their production facility to the market. Since these contracts often concern long distance transport with transit through several Member States, suppliers will have to close transmission contracts with different transmission system operators (TSO’s). Suppliers have to contractually secure the required capacity for the required long term period with all TSO’s in order to transport gas through the complete transmission chain from the production location to the market. Differences in capacity allocation mechanisms and network codes between TSO’s, hamper suppliers in closing transmission contracts. In order to secure non-discriminatory capacity allocation most EU members have a first come – first served allocation methodology in place. This mechanism allocates capacity in a transparent and non-discriminatory way based and a first-come first-serve methodology but requires all market parties to anticipate timely on their capacity needs. As long as domestic traders continue to have a relatively short term horizon, these traders could be pushed out the capacity market by parties with a more long-term focus. Where market parties increase exit or export capacity bookings on top of normal system capacities, this could result in contractual or even physical capacity congestion. When the requested additional capacity requires expansion off the grid that takes longer than the time to start the actual supply contract, market players with a short-term horizon for capacity contracting could end up without a capacity booking.

Unbundling itself has negative effects on the availability of ample transmission capacity, which is one of the pre-requisites of a well functioning open market. First, unbundling results in a loss of market information for transmission companies. Within an integrated company, the transmission division was constantly updated on developments in the commodity market. Where there is full unbundling, trading companies tend to keep this commercial information to themselves. On top of this, in most Member States, regulators have implied an entry-exit systems. Entry-exit systems have resulted in de-coupling of physical and contractual capacity which makes it more complex for TSO’s to plan and operate the network in an efficient manner. In addition to this loss of market information, there is a second reason why unbundling results in a less efficient use of the network. Integrated companies were driven to optimise the use of the network by matching the portfolio flexibility of supply contracts with the physical capacity and limitations of the network. In the current setting, the trading companies will base their transport contracts solely on a trader’s perspective to optimise their supply portfolio and not necessarily on the perspective of optimal network utilisation.

Full unbundling stimulates competition in the gas market. Independent transmission companies will develop and improve their services in order to attract new customers. In addition, infrastructure projects owned and operated by independent transmission companies can remove financial hurdles preventing market parties from entering new markets. Thirdly, growth ambitions will increase emphasis on international competing services of the unbundled transmission companies and force them to increase their customer focus at both national and international level. This requires national regulators to give up their national perspective and recognise the EU level playing field for internationally competing services. Differences in pace of implementation of EU Directives into national legislation and guidelines, hamper international competition.

Realisation of efficiency improvements was one of the main drivers behind the liberalisation and regulation process. However, a loss of market information for transmission companies due to unbundling and the implementation of entry-exit systems both increase the complexity for TSO’s to operate the network efficiently. On top of that, a liquid commodity market requires spare capacity for traders to anticipate surpluses and shortages in the gas market. These factors imply that a well-functioning gas market may not result in a more efficient use of the transmission network.
5. EVALUATION OF STRATEGIC INVESTMENTS IN GAS INFRASTRUCTURE

5.1 DRIVERS TO INVEST
Over time the position of Member States and the EU as whole, has changed and is still moving towards increasing dependency on imports from Russia, the Middle East and North Africa (figure 1 and 2).

![Figure 2. Increasing EU demand for gas together with a decline in EU production results in a rise in EU imports. Source: N.V. Nederlandse Gasunie](image)

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Increasing dependency on imports results in a new geographical situation for demand and supply for the EU market. This will influence the strategic activities of transmission companies as these companies want to maintain and expand their position in the “new” supply and “new” demand situation. First by investing in services that will attract these new flows to and through their system for instance by increasing market liquidity (hubs), flexibility (storage) and diversification of supplies (LNG terminals). But within the gas industry, both the financially integrated and the fully unbundled

![Figure 3. Large gas reserves are situated far from EU market. Source: Oil and Gas Journal, Norwegian Petroleum Directors, others.](image)
companies will also try to reposition themselves within the new demand and supply context. They will seek partners for repositioning and linking their activities in order to strengthen their position in view of the expected future gas market. Independent transmission companies are at the position to start this consolidation process without reducing competition on the commodity market. Independent transmission companies can focus on strategic transmission partners in order to secure their position also in the transmission chain for the new supply and demand situation. But full unbundling also offers other opportunities. Fully unbundled companies can act as an independent party to bring together gas demand and gas supply. Independent transmission companies with e.g. LNG activities can play a role in aggregating demand and also providing suppliers with the opportunity to enter new markets on a large scale. Unbundled transmission companies can thus play an important role in opening up the gas commodity market.

The process of developing new strategic projects is influenced by the regulatory regimes that are imposed at both national and international level. First, regulation could directly affect the financial basis of new strategic projects which in turn could result in delay or cancellation of these projects. Second, regulatory regimes in other European Member States influence project-evaluations where there are internationally competing services such as transit routes, landing of LNG and hub services. Tariffs for services in competing countries will affect the commercial feasibility of an investment project. Independent transmission companies will try to maintain or expand their position in the EU, not only by anticipating new gas streams but also by affecting the market position of other transmission companies. This means that transmission companies have to compete with other market parties to maintain their current position. They will thereby put a downward pressure on the tariffs and service levels for all new internationally competing projects as well as for existing infrastructure.

5.2 EFFECTS OF REGULATION ON STRATEGIC INVESTMENTS
Independent gas transmission companies are no longer a cost centre for the trading department but have instead become profit centres of their own. This necessitates a huge change in market approach and market strategy. With respect to investments in the transport system, gas transmission companies will need to focus solely on the costs and estimated revenues for transport in order to evaluate new investment projects. Transmission infrastructure projects will need to be profitable stand-alone projects since they will no longer form a relatively small part of a long term gas-trading contract. This implies that the risk evaluation of new investment projects have to be in line with the estimated (regulated) transport revenues. It is unlikely that transmission companies will invest in projects where there is a risk of ending up with unsold services if they are not allowed to calculate this risk within the regulated profit margin.

With an open European gas transmission market, national transmission companies have to operate on a level playing field internationally. This means that many investment projects will have to compete at international level. Once these investments have been realised, they will compete on service and price levels in the European gas infrastructure market. As a result of the prevailing regulatory regime, price and service levels in one member state will affect the position of transmission companies in other Member States. This requires a new strategic way of thinking and a different market approach which is not just applicable to price and service levels but to almost all strategic decisions: transmission companies have to incorporate the view of their competitors and that of the regulator into their strategic decisions.

Unbundling consequently results in de-coupling of the transmission and commodity contracts. This complicates the process of closing new supply contracts but also complicates realisation of new infrastructure projects necessary to execute the supply contracts. In the unbundled situation, the integrated company could close both the commodity contract and perform the infrastructure investments necessary for the underlying supply contract. In the unbundled situation, the transmission
company wants to have contractual capacity commitments before it will invest in infrastructure. This results in a chicken and egg situation because the supplier and trader will only close the commodity deal if it’s certain that the infrastructure will be available against pre-fixed tariffs in time. The infrastructure company however, will only invest in the required infrastructure if it can sell part of its future capacity beforehand. This complicates the process for capacity expansions required to facilitate new supply contracts. One way to bypass this problem is to close long term contracts. Infrastructure companies will thereby receive the commitment and the assurance of market players that they will buy the capacity and hence enable transmission companies to efficiently plan and operate their infrastructure. Traders and suppliers will have the assurance that the infrastructure will be in place when the supply contract starts.

However, over the past five to eight years supply contract duration has decreased and the timing of closing a contract is deferred as much as possible. This trend is in line with the view of the EU Commission. The EU Commission fears that long term contracts will undermine market functioning since these contracts lock the supply market in its current setting and thereby close the market for new entrants.

In order to reduce or exclude the risk of future regulatory changes, transmission companies often request exemption from regulation. Regulatory changes form a risk to the infrastructure projects since they have a strong impact on the expected project return. Transmission companies cannot bear these risks since it’s not allowed to incorporate these risks in its tariffs. It therefore will request an exemption from regulation if regulatory uncertainty could result in cancellation of the project. The process of requesting an exemption involves the EU Commission, the national regulator and in case of cross-border projects, several national regulators. This process potentially results in a delay to the decision-making with regard to infrastructure projects. This will have a negative impact on the investment climate, especially in cases of cross-border infrastructure projects which are required to foster gas imports from non-EU suppliers.

All the above mentioned developments, i.e. no investments in stand-alone transmission projects if the risk of ending up with unsold services cannot be calculated in the regulated profit margin; the uncertain outcome and effect of national and international regulation on the profitability of investment projects; uncertainty with regard to revenues due to decreasing contract duration and the intention of the EU Commission to prohibit long term contracts, have a negative effect on the investment climate projects. Given the major investments that will be needed to cope with the predicted increase in market demand, the decline in indigenous European production over the coming decade and the increased focus on diversification of gas supply, delay or cancellation of new infrastructure projects will affect the supply security of Europe.

6. CONCLUSIONS

We are now somewhere halfway towards the EU liberalisation and regulation process and have reached a point for reflecting on whether the current EU liberalisation model is adequate and is suited to achieve its final goal of one single EU gas market. At the start of the process, members of the European Union set a clear objective: establish a single, transparent, liquid and efficient EU gas market. The underlying assumption is that this will attract new supplies and enable suppliers to compete for market share. A single EU gas market would result in lower prices for end users, reduction of price instability and enhancement of security of supply.

In order to establish a well functioning single EU gas market, at least two things must be in place: non-discriminatory third party access to the transmission systems and sufficient infrastructure capacity. Unbundling is generally considered to be one of the pre-requisites for non-discriminatory market access and market transparency. It changes the perspective of independent transmission companies
towards new entrants from competitor to potential customer and stimulates them to improve and develop their services. Additionally, infrastructure projects owned and operated by independent transmission companies can remove financial hurdles preventing market players from entering new markets. Thirdly, growth ambitions of independent transmission companies will increase emphasis on international competing services and force them to increase their customer focus at both national and international level.

Sufficient transport capacity is a second pre-requisite for a well-functioning single EU gas market. It allows traders to anticipate surpluses and shortages in the gas market. This together with the predicted increase in market demand, the expected decline in indigenous European production and the increased focus on diversification of gas supply, requires large investments in the EU gas infrastructure. The process of developing new strategic projects is influenced by both national and international regulation. First, national regulation can directly affect the economic feasibility of new strategic projects. Insufficient regulatory conditions could in turn result in delay or cancellation of these projects or will require exemptions. Secondly, regulatory regimes in other European Member States influence the evaluation of internationally competing projects. Tariffs for internationally competing services in one member state will affect the commercial feasibility of an investment project in another.

An anticipated reduction in gas prices was one of the main drivers for the liberalisation and regulation of the gas market. However, it is not clear what the effects of the regulation process are in relation to the costs and tariffs of infrastructure services and its impact on consumer prices. With a downward pressure on tariffs for regulated services by national regulators and with an increased emphasis on international competing services due to the growth ambitions of the unbundled transmission companies, transmission companies are forced to increase their efficiency in order to remain profitable. However, a liquid commodity market requires spare capacity for traders to anticipate surpluses and shortages on the gas market. Additionally, unbundling results in a loss of market information and implementation of entry-exit systems increases the complexity to plan and operate gas infrastructure in an efficient manner. Although an increase in efficiency was one of the main goals of the liberalisation and regulation process, a well functioning gas market also brings transport inefficiencies.

The EU Commission has created a framework of Directives and guidelines to achieve a single EU internal gas market. These instruments leave a degree of freedom for national authorities, called subsidiarity, to implement the EU directives into national law and the EU guidelines into national regulation. On one hand this leaves room for national authorities to implement the EU directives and guidelines while taking account of specific national circumstances. On the other hand, differences potentially raise hurdles for traders to transport gas from one member state to another and may hamper competition in international competing services as well as the development of new infrastructure investments. Especially in cases of cross-border infrastructure projects since these involve several national regulators and the EU Commission. Unbundling of integrated companies and differences in national regulation result in a complex and less effective setting to close new supply contracts. One possibility to encounter this problem is to close long term contracts. This will assure supplying parties and traders that the required transmission capacity for the underlying supply contract will be available. In addition long term contracts will reduce the risk of idle infrastructure capacity for transmission companies and hence enable these companies to efficiently plan and operate their infrastructure.

The implementation process via Directives and guidelines, the absence of a collective European political drive to open national markets, the market approach of national regulators and the growing
geopolitical dimension to gas supplies have resulted in considerable differences between Member States. All these factors have a decelerating effect on the EU liberalisation and regulation process which results in a fragmented and distorted gas market. Not only will this keep fully unbundled companies in a disadvantageous position compared to integrated companies but this could also well affect the supply security position of the EU. Setting the right infrastructure access conditions is a pre-requisite for non-EU suppliers to supply gas to the EU and enables suppliers to compete for market share.
7. LIST OF FIGURES

Figure 1. Example of a new pipeline project competing with existing infrastructure. Source: GTE Transit report, 27 June 2005.

Figure 2. Increasing EU demand for gas together with a decline in EU production results in a rise in EU imports. Source: N.V. Nederlandse Gasunie.

Figure 3. Large gas reserves are situated far from EU market. Source: Oil and Gas Journal, Norwegian Petroleum Directors, others.