Statement of Germany's Federal Ministry for Economic Affairs and Energy on the Consultation of the European Commission on an EU Strategy for LNG and Gas Storage

I. General remarks

Natural gas is essential for the current energy mix in most EU Member States. It is the energy source which may take over a bridging function on the way to a more sustainable energy supply as it can interplay with renewable energies like sun and wind and back them up when they are not available.

The domestic production in the European Union is declining. After 2020, this will also apply to the existing Norwegian fields and it is uncertain whether, when and how its potentials of arctic gas resources will be exploited.

For this reason we expect the European import dependency to rise even if natural gas consumption will go down as shown in the Annex of the consultation paper.

Whether the increasing import dependency will be served in the future by pipeline-bound gas or LNG is unclear. Already today the size and characteristics of national gas markets differ with respect to LNG and storage. It might be useful to incorporate a regional focus into the EU gas strategy taking into account regional needs and emphasizing inter alia regional capacity-building and cooperation.

Central European gas supply is to a large share served by Russian gas. There is almost no doubt that under an economic perspective Russian gas will also be the backbone of central European gas supply in the medium and long run. This does not necessarily rule out LNG but in Central Europe LNG will face tough competition with Russian pipeline gas.

However, to compensate the declining domestic production and reduce the dependency on Russia, diversification of gas resources has to be on the agenda. Besides the installation of the Southern Corridor, which will provide pipeline-bound gas supplies from Azerbaijan in 2020 and possibly from other suppliers like Turkmenistan and Iraq later on, LNG is the central tool to diversify the gas supply.

More LNG will come on the world market in the coming years due to new market entrants like the US and Australia which will increase the LNG volume on the supply side. Whether the existing and additional LNG supply volumes will finally be brought to European markets by LNG traders depend largely on the realisable European netback prices compared to price levels of other regions. These netback levels basically result from the demand and supply situation or “in short” the prices of the competing world natural gas markets.

On the demand side, primarily the situation of the Asian-Pacific market has been a determining factor also for the use of LNG in Europe. Currently, the growth rate of China is slowing down and Japan is restarting some nuclear power plants and using more coal because of the lower price. Depending on the development of the world economy this could lead to a LNG glut until at least 2020 and the convergence of LNG and pipeline gas prices in Europe. The question is the extent and the timeline of this convergence.

Because of this expected oversupply more LNG could be shipped to the European markets. According to the Mid Term Gas Report of the IEA the role of LNG in Europe will increase and rise from 40 bcm to 90 bcm in 2020. The volumes of spot and short term LNG contracts could further grow and put pressure on the oil indexation used by most of the long term LNG contracts.

If this will all happen, the LNG market could develop to a buyer’s market until 2020. With regard to a long-term perspective, it remains to be seen, for example, which effect the changed price environment will have on investments in new LNG infrastructure.

An LNG strategy should aim at becoming less vulnerable to gouging by big suppliers. To this end, it should be investigated whether enough LNG capacity and connecting pipelines in the EU are available or have to be built to provide an alternative gas supply in case of disruption.

Gas Storages play an important role as structuring / flexibility instruments and also contribute to security of supply. In our view, these functions could be fulfilled best in an functioning internal energy market. A storage strategy should emphasize a principally market-based use of and access to storage facilities. We call for initiatives which set the right market incentives to use gas storage in an optimal way ensuring the adequate level of gas in storage also for emergencies. However, given the unique role of storage in Member State, the decision whether to make use of storage obligations to strengthen the security of supply should be left at the discretion of each Member State. Such interventions should be only considered if it can be shown that they are efficient, proportional and do not damage the overall development of markets. The LNG and storage strategies should complement each other. The function of LNG and storage is different. Whereas storage is a quick emergency response tool LNG is mainly an element to diversify the supply. LNG can only serve as an emergency instrument in conjunction with the option to store gas due to the time needed to bring additional LNG cargos to the LNG terminal.

II. Answers

Answer to question 1:

Access to an LNG terminal either in one's own or in a neighbouring country can improve the security of gas supply and contribute to having a better negotiation position against suppliers with a dominant market position. However, the best way to connect with LNG terminals is the completion of the internal market. As a "one size fits all solution" is not feasible it is difficult (or virtually impossible) to give an exact figure for the optimal share of LNG – even for a single country or region. This depends on the general situation of the country, e.g. geographical

situation, domestic production, pipeline import points and connections with neighbouring states. From the security of supply perspective further instruments like storage and demand side management as well as the intended level of security of supply need to be taken into account in order to assess the “best level” of LNG. As already indicated, the price of LNG imports compared to pipeline gas imports plays an important role. If LNG prices were to be competitive with pipe gas, the “best level/share” of LNG would be higher than in cases where LNG would mainly serve as an “insurance” against supply disruptions and/or short-term demand surges.

Answer to question 2:

The question whether new LNG infrastructure is needed to match supply and demand and whether building new LNG infrastructure is cheaper than building pipelines to connect existing terminals with regions where the gas is needed is indeed the crucial one. It should be investigated whether the construction of new LNG terminals is more cost effective than new connections with existing LNG terminals in the EU which have altogether a capacity of about 200 bcm and are currently underutilized. In principal, it should usually make more economic sense to first fully utilize the existing infrastructure and to better connect the internal European market before investing in new LNG infrastructure projects. If projects are market driven it is the risk of the market actors to decide on the investment. As far as public European funds are needed the most economical solution should be chosen.

In this regard the EU-Commission could launch a study to investigate whether new LNG terminals or better pipelineinterconnections are the most economical way to reach EU security of supply objectives.

Answers to questions 3 and 4:

Further EU action in the LNG infrastructure beyond the existing TEN-E-Regulation is not needed. EU-supported infrastructure investments

have to be shown to be actually needed and based on a thorough cost-benefit analysis according to the existing legal framework.

Investment should be mainly market driven to avoid redundancy and stranded assets. A better functioning internal market is a cheaper possibility to ensure security of supply than support for single infrastructure projects which may serve only one particular country.

In our view, better storage possibilities would not trigger the use of LNG gas and existing LNG infrastructure. Storages compensate particularly seasonal demand patterns and as such may serve both LNG and pipeline gas.

As to the future gas demand uncertainties exist especially in the long term whereas the “near future” is covered in principal by e.g. energy studies and the Ten-Year Network Development Plan. However, these uncertainties pertain not exclusively to LNG.

As long as the need for gas imports is not growing there will be a considerable risk of stranded investments provided that incumbent suppliers still have resources and the necessary transport infrastructure in place. However, these investments should not be considered as stranded, as long as they serve as an insurance policy for a safer supply with gas.

Answer to question 5:

According to Germany’s energy policy objectives, the consumption of fossil fuels should be reduced. Energy efficiency and renewables are the way to reduce the gas consumption. We have no evidence or figures on the relation between the costs of an LNG infrastructure compared with other means. In the building sector Germany aims at achieving a “nearly climate neutral building stock” by 2050.

Answer to question 6:

As Germany has so far only made limited use of LNG terminals in neighbouring Belgium and Netherlands there is still only little

experience available on the question. However, we consider the full implementation of the 3rd Energy Package by all Member States as essential for an European level playing field for free and efficient gas flows. It should be ensured that gas cannot only flow from Germany to France but also from Spain to Belgium.

Answers to questions 7 and 8:

In contrast to oil, LNG is very capital intensive, especially on the liquefaction and transportation side. So far investments have been secured by long-term supply contracts using a price index. However, long term contracts and oil price linkage, do not necessarily belong together. New market entries like those planned or under construction in the US demonstrate that hub-based pricing is also possible. It should be investigated how new financial mechanisms other than long term supply contracts can push the investment in new liquefaction plants, especially against the background of changing regional gas markets in terms of pricing models and duration of contracts of pipeline gas.
Also the relaxation of destination clauses in the supply contracts could make the LNG market more flexible. By establishing more liquid market places short term and spot LNG markets could also be promoted.

Competitive, transparent and liquid worldwide energy markets benefit all and lead through their straight price signals to an efficient allocation of resources. The EU could support international efforts for the establishment of transparent and competitive natural gas markets and with special regard to LNG support the removal of destination clauses in commercial LNG-supply contracts. The removal of export restrictions would also improve the liquidity of LNG trade.

Answer to question 9 and 10:

As already mentioned in the general remarks it is expected that LNG supply will expand and that LNG will become more important on a global scale and also for Europe. The role LNG can play for the European gas supply in the future will in the first place be determined by the price. The IEA is of the opinion that LNG can have in the future a

greater role to play in the EU but that it will remain a residual market for LNG. The question is how long the LNG oversupply will exist. Dropping prices for LNG could lead to reluctant investments in LNG production facilities which could result in LNG markets becoming tight in the next 7 to 10 years. Under the condition of a buyer's market it is expected that the oil indexation will lose its importance. Lacking availability of significant spot volumes is currently a problem on the global LNG market. This will change in the future as new producers will come on the market.

To allow private companies to jointly purchase on a voluntary basis is considered critically from the point of view of competition as it may generate distortive market effects. This should only be a possibility of last resort in case of emergency.

The level of price uncertainty is the main obstacle for long term infrastructure investments. The establishment of liquid long term wholesale natural gas markets (like e.g. Henry Hub) could send price signals to investors whether investments are lucrative or not. Therefore it would be useful if the EU could support international efforts to establish liquid, competitive and transparent wholesale natural gas markets.

Answer to question 11:

We expect the market share of LNG to increase in the transport sector over the medium term, in particular in the field of maritime traffic including bunker stations in harbours as well as possibly with regard to heavy-duty traffic.

Since LNG has advantages compared to conventional fuel in terms of pollutant emission and noise reduction, harmonization of standards and in particular stronger enforcement of penalty policies could result in a stronger use of LNG.

The EU-commission should continue to monitor the harmonisation of the LNG-gas qualities expressed in the Wobbe-index.

Answer to question 12:

In our view, there are no sustainability issues specific to LNG that should be addressed in the EU LNG Strategy.

Answer to question 13:

In liberalized natural gas markets all flexibility sources compete with each other. Except for times of extremely high gas demand storages compete with e.g. import pipeline flexibilities, LNG and demand side responses. The price for this flexibility service is set by the marginal flexibility source that is needed to satisfy demand. In combination with this increased competition and the fact that market integration has further pushed pressure on structuring/flexibility services, gas storages are facing a challenging environment. The market value for gas storages has decreased. In this sense both supply sources, pipeline or LNG, can depending on the circumstances pose a challenge or be a partner for gas storages. On the one hand LNG deliveries can within a certain period of time step in after gas storages have acted as a quick response tool to fill supply demand gaps. On the other hand LNG is stored by its very nature in tanks, where the send out rate can be set according to actual demand. Similarly to fast cycled underground storages LNG storages can be used for structuring/flexibility services but only at considerably high costs. With regard to new pipelines these are usually built to ensure steady flows (maximum utilization of the installed capacity) and need storages for structuring and therefore complement one another. Nevertheless one has to keep in mind that existing import pipelines to Europe do often show seasonal supply patterns that furthermore vary within the specific months. Except for times of extremely high gas demand they therefore have considerable structuring capabilities and also compete with underground storages.

Increased renewable energy capacities and energy efficiency measures have the potential to reduce the overall natural gas demand. However, the intermittency that comes along with renewable energy capacities might on the other side even lead to an increased demand for structuring/flexibility services and therefore be an opportunity for flexibility suppliers such as underground storages.

Answer to question 14:

In our view, current market and regulatory conditions in Germany are generally adequate to ensure the role of gas storages in providing flexibility and security of gas supply. There are no restrictions on the access to storage facilities in Germany. Access is agreed by contract between the parties and must be granted on a non-discriminatory basis. This means that German storage facilities are also available for foreign customers.

Answer to question 15:

Currently, there are no storage obligations in Germany. Possible mandatory storage obligations ought to be examined thoroughly on the basis of a cost-benefit-analysis and according to their efficiency. Due to largely different roles of storage across Europe, the decision whether to make use of mandatory storage obligations should be under discretion of each Member State.

Market based instruments can be appropriate means to contribute to adequate minimum storage reserves by setting the right market framework for the value of security of supply. The new balancing regime according to the network Code on Gas Balancing of Transmission Networks is deemed to be a suitable instrument and should be effectively implemented. Market-based demand-side measures can make also a valuable contribution to a security of supply system, even though they do not assure minimum storage reserves.

Answer to question 16:

As stated in the answer to question 1, it is also virtually impossible to determine an optimal share of storage, even for a single Member State or region. The optimal level of storage depends on the general conditions in a country, e.g. domestic production, transport route structure and suitable location for storage capacities. Due to favourable geological and market conditions, the storage infrastructure in Germany is well developed and actively used. Though, storages contribute

significantly to the security of supply not only in Germany. It could be also investigated whether the use of gas storage in countries outside the EU can contribute to an increase of security of a supply for at least some EU Member States.

Answer to questions 17-18:

Further EU action in the storage infrastructure beyond the existing TEN-E-Regulation is not needed. However, we welcome and fully support the efforts of the European Commission to the full implementation of the 3rd Energy Internal Market package.

Notably in the long run, it must be our ambition to reduce the overall natural gas demand by using more renewable energies and increasing energy efficiency. The expected decrease of the gas demand poses a considerable risk for the realisation of gas infrastructure projects. Nevertheless, as pointed out in the answer to questions 3 and 4, gas infrastructure investments should in principle be market-driven. Thereby, the risk of stranded assets is reduced in an optimal way. We support, however, some EU-infrastructure investments necessary to improve the overall EU energy security if they can be shown to be needed and based on a rigorous cost-benefit analysis.

Answer to questions 19-23:

The optimal use of storage is hindered by regulations that support market power of certain participants or by regulations that disrupt the free price mechanism. Market regulation should therefore focus on improving competition among market participants and help establishing reliable price signals. Free storage capacities should be allocated in a competitive and transparent process like auctions or at least bilateral contracts. In this sense administered prices are usually not an efficient way to allocate storage capacities. In certain cases storage obligations can have a negative effect on competition and act as a market entry barrier for new market participants. Also country specific regulations such gas quality specifications can impede the cross border use of storage capacities.