

Opinion of
EnBW Energie Baden-Württemberg AG

on the Consultation of the European Commission
on an EU strategy for liquefied natural gas and gas
storage

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EU strategy for LNG and gas storage**

Question 1: Do you agree with the assessment for the above regions in terms of infrastructure development challenges and needs to allow potential access for all Member States, in particular the most vulnerable ones, to LNG supplies either directly or through neighbouring countries? Do you have any analysis or view on what an optimal level/share of LNG in a region or Member State would be from a diversification / security of supply perspective? Please answer by Member state / regions

From our perspective it is necessary to find the most advantageous solution with respect to supply sources and transport opportunities through LNG and/or pipeline, which will vary significantly from country to country and between individual companies. We therefore strongly advise against mandatory LNG quotas, whether on a national level or on the level of individual gas suppliers.

Question 2: Do you have any analysis (cost/benefit) that helps identify the most cost-efficient options for demand reduction or infrastructure development and use, either through better interconnections to existing LNG terminals and/or new LNG infrastructure for the most vulnerable Member States? What, in your view, are reasons, circumstances to (dis)favour new LNG investments in new locations as opposed to pipeline investments to connect existing LNG terminals to those new markets?

The existing LNG terminals are, in our opinion, sufficiently well connected to the adjacent pipeline systems e. g. GTS for the GATE terminal in Rotterdam. What is somewhat lacking, despite recent improvements, is connectivity between market areas and trading hubs, enhancing gas flows between Member States, whether originally imported as LNG or pipeline, or from indigenous production.

Question 3: Do you think, in addition to the already existing TEN-E Regulation, any further EU action is needed in this regard? Do you think the use of LNG gas and existing LNG infrastructure could be improved e.g. by better storage possibilities, better network cooperation of TSOs or other measures? Please give examples

The accessibility of LNG import and storage facilities can indeed be improved through enhancements of interconnectors between the countries. However additional investments should not have negative effects on the countries and their market participants where the LNG and storage facilities are located. Investments should in any case be borne by the beneficiaries of these interconnector investments. We also want to emphasise that adverse effects such as access and usage

restrictions on the customers of the countries where these facilities are located must be precluded. That means, if there are capacity extensions needed in LNG or storage facilities then beneficiaries have to bear the additional investments and costs.

Question 4: What in your view explains the low use rates in some regions? Given uncertainties over future gas demand, how would you assess the risk of stranded assets and lock-in effects (and the risk of diverting investments from low carbon technologies such as renewables and delaying a true change in energy systems) and weigh those against risks to gas security and resilience? What options exist in your view to reduce and/or address the risk of stranded assets?

The low utilisation rates correlate to the price level in the respective regions as well as price differentials between European gas markets and other LNG receiving regions, in particular East Asia but also South America. Diversion rights to accommodate arbitration opportunities towards more valuable destination markets are regular clauses in LNG supply contracts. This indicates that contrary to pipeline, LNG buyers face global competition. LNG provides more flexibility than pipeline gas. In periods when demand and prices are low LNG can also be re-exported. This has been the case for the last years in Europe where significant volumes were re-loaded to more attractive markets. So utilisation of an import terminal does not automatically correspond to supplies into the adjacent market.

Question 5: The Energy Union commits the EU to meeting ambitious targets on greenhouse gas emissions, renewable energy and energy efficiency, and also to reducing its dependency on imported fossil fuels and hence exposure to price spikes. Moderating energy demand and fuel-switching to low carbon sources such as renewables, particularly in the heating and cooling sector, can be highly cost-effective solutions to such challenges, and ones that Member States will wish to consider carefully alongside decisions on LNG infrastructure. In this context, do you have any evidence on the most cost-efficient balance between these different options in different areas, including over the long term (i.e. up to 2050)?

No

Question 6: What in your view are the most critical regulatory barriers by Member State to the optimal use of and access to LNG, and what policy options do you see to overcome those barriers? Have you encountered or are you aware of any problems in accessing existing LNG terminal infrastructure, either because of regulatory provisions or as a result of company behaviour? Please describe in detail.

As a market player in North Western Europe we can say that there are regulated regasification terminals and terminals which are exempted from regulated third party access, in combination with UIOLI-mechanisms. From our experience, access rights can be obtained even in exempted facilities from existing capacity holders where needed, and no further regulatory measures appear to be necessary.

Question 7: What do you think are the most critical commercial, including territorial restrictions and financial barriers at national and regional level to the optimal use and access to LNG?

It is beneficial that destination markets have a critical size to be sufficiently attractive for LNG supplies. Otherwise economies of scale are not likely to materialise. An alternative for small markets are FSRU's which require shorter lead times as well as less capital expenditures. However the challenges of size remain and additionally to that flexibility restrictions could tighten the supply situation. Therefore it is not sure whether LNG fits to every area.

Question 8: More specifically, do you consider that ongoing EU policy initiatives and/or existing legislation can adequately tackle the outstanding issues, or there is more the EU should do?

Energy policy, for a number of reasons, remains a prerogative of national decision-making, and the very different circumstances (industrial demand, availability of natural resources, acceptance of nuclear power, to name a few) between Member States imply this situation to remain. Furthermore, liberalisation of energy markets has shifted responsibility for gas procurement and investment in gas production and transportation assets, whether through pipeline or LNG to privately held companies. Recent fluctuations in commodity prices have highlighted the chances and risks inherent in such decisions, which are currently borne by the companies individually. We therefore recommend a rather cautious approach with regard to interfering with individual companies' decision on gas procurement strategies.

Question 9: How do you see worldwide LNG markets evolving over the next decade and what effects do you expect this to have on EU gas markets? Do you expect a shift away from oil-indexed LNG contracts, and if so under what conditions?

In the upcoming years the global LNG market will develop steadily. Particularly the advent of Australian as well as US liquefaction units with their large capacities will have a deep impact on the

markets in the Pacific Basin. The Atlantic Basin will also attract significant volumes. Europe will play an important role to serve as last resort for residual volumes. However it is questionable whether this will lead to converging markets. Today we see that LNG import contracts already contain gas hub indices such as HH as well as NBP and this trend will likely continue in the future.

Question 10: What problems if any do you see with the functioning of the international LNG market, particularly at times of stress? Are there specific actions the EU should take, in dialogue with our international partners, including in trade negotiations, to improve its functioning and/or to make the EU market more attractive as a destination for LNG? Could voluntary demand aggregation be helpful in some way

We do not see any advance in an interventionist approach to increase attractiveness of LNG supplies to Europe. The authorities should guarantee that there is transparent and non-discriminatory access to the LNG storage and grid facilities or in cases of exemptions clear rules to prevent capacity hoarding. Market participants such as LNG importers should be free to decide whether or not to bundle supplies in order to improve their market position towards suppliers. However we regard political intentions critically be it on national or on EU-level to intervene into supply negotiations or exert influence on with the aim of reviewing contracts.

Question 11: What technological developments do you anticipate over the medium term in the field of LNG and how do you see the market for LNG in transport developing? Is there a need for additional EU action in this area to reduce barriers to uptake, for example on technology or standards, including for quality and safety?

We predominantly follow up the LNG Heavy Duty Truck developments in Germany. In this sector we expect market entry of HPDI LNG motors with significant CO2 emission reduction. Especially in Germany the discussion of PM and NOx reductions in combination with area access restrictions can be drivers for LNG truck technology, if there are clear technical standards for emission targets and emission control test procedures. With regard to the actual low diesel prices, we do not expect any supporting economic interest in LNG technology with the transportation companies as there was in 2014.

Question 12: Do you think there are any sustainability issues specific to LNG that should be explored as part of this strategy? What would be the environmental costs and benefits of alternative solutions to LNG? Please provide evidence in support your views.

In order to be in position to answer this question satisfactory a view and assessment of the environmental costs in LNG producing regions would be necessary.

Question 13: What opportunities or challenges do the supply projections for different sources, in particular LNG and pipeline gas and low carbon indigenous sources, present for the use of gas storage / for gas storage operators?

We do not see any link between supply projections and the use of gas storage. Before answering this question, flexibility projections would be required.

Question 14: Are, in your view, current market and regulatory conditions adequate to ensure that storages can fully play their role in addressing supply disruptions or other unforeseen events (e.g. extreme cold spells)?

We see that there are physical constraints which have to be surmounted in order to draw the full potentials of storage facilities. As an example the winter period in January/February 2012 has shown that there has been enough gas in the storages in Northern Germany but bottlenecks in the grid hampered flows into the southern regions. Meanwhile, national regulators have responded and approved needed investment in grid enhancing investments, although more remains to be done.

Question 15: As an alternative to mandatory reserves, how could market based instruments ensure adequate minimum reserves?

We do clearly prefer market based instruments to ensure adequate inventory levels. One instrument could be flow commitments which the system operator – regularly the grid operator – can buy amongst others from transport and storage customers respectively. In cases of supply shortfalls the grid operator would call up the required gas flows. The occurring costs to be incurred by the grid operator could in turn be incorporated in the network tariffs.

Question 16: Do you have any analysis or view on what an optimal level/share of storage in a Member State or region would be? What kind of initiatives, if any, do you consider necessary in terms of infrastructure development in relation to storage?

That strongly depends on the availability of other flexibility instruments from which the market participants should be permitted to choose freely.

Question 17: Do you think, in addition to the existing TEN-E Regulation, any further EU action is needed in this regard?

Before additional steps are executed it should be clear that the 3rd energy package has to be applied in all member states.

Question 18: Given uncertainties over future gas demand, how would you assess the risk of stranded assets (and hence unnecessary costs), lock-in effects, the risk of diverting investments from low carbon technologies such as renewables, delaying a transition in energy systems and how would you weigh those against risks to gas security and resilience? What options exist in your view to reduce the risk of stranded assets?

It is obvious that investments in assets will only be justifiable if costs are remunerable. If long term contracts or revenues guaranteed by regulation are not in place, companies will hesitate to invest in infrastructures. In the context of security of supply what requires additional capacities in the various infrastructures the question is who is bearing the costs incurred? As we already mentioned above it must be guaranteed that previous users of infrastructures will not have disadvantages, neither financially nor operationally.

Question 19: What do you think are the most critical regulatory barriers to the optimal use of storage in a regional setting?

In cases where storages are connected to two or even more countries it has to be guaranteed that injections and withdrawals can be executed from both sides of the border without any operational or financial disadvantages.

Question 20: Do you think ongoing initiatives and existing legislation can tackle the remaining outstanding issues or is there more the EU could do? Do initiatives need to include additional issues further to the ones described here?

See above

Question 21: Do you consider EU-level rules necessary to define specific tariff regimes for storage only or should such assessment be made rather on a national level in view of available measures able to meet the objective of secure gas supply?

See above

Question 22: Have you ever encountered, or are you aware of, difficulties in accessing storage facilities? Has this concerned off-site or on-site storage facilities? Please describe the nature of the difficulties in detail.

No

Question 23: Have you ever encountered, or are you aware of, difficulties related to feeding LNG gas from the storage site back into the gas network? If so please describe the nature of these difficulties (regulatory provisions, company behaviour, technical problems) in detail.

No