

Consultation on an EU strategy for liquefied natural gas
and gas storage

Answers from SOLVAY Energy Services

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 neighboring countries?

We agree on the principles, but if the investments are essentially focused on the central-eastern countries issue, it is clear that the Iberian LNG terminals are not a priority in order to help the gas supply of Central and Eastern European Countries.

We suggest to take into consideration the recent decision to realize “North Stream 2”. This huge investment will have to become profitable for shareholders. Then, beside Gazprom, BASF, Engie, E.ON, ÖMV, and Shell will necessarily use it and such will feed central Europe.

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 / region.

The right level to assess a SoS policy is probably the “regional” one more than the Member State (MS) one. Regionally speaking, 1/3 of LNG capacity (or supply) seems to be enough (pm: only 24% of existing capacities are presently used...).

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?

It is clear that inexpensive solutions must be searched at that time when gas cost for industry in Europe is already very significantly higher than in other part of the world (more than double of the USA price). On this basis, clearly gas demand side response is significantly cheaper than new infrastructures that will be used at their full capacity only during gas crisis i.e. every 20 or 50 years!

Again, energy transition isn't possible without energy flexibility.

What, in your view, are reasons; circumstances to (dis)favor new LNG investments in new locations as opposed to pipeline investments to connect existing LNG terminals to those new markets?

As long as any new substantial capacity pipelines to Middle East and/or the Caspian fields don't exist, additional LNG terminals are necessary in eastern part and Nordic part of Europe.

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 present situation is that LNG facilities are frequently not regulated, then this fact generates rather high prices i.e. dissuasive ones, particularly for industrial consumers as us.

Furthermore, the physical constraints of a LNG terminal are to be considered (like the obligation for a customer to quasi-immediately storage in the underground the huge quantity unloaded from a ship –the customer being unable to consume it--, i.e. obligation to book very high storage capacities –at a high unitary additional cost--). All these factors lead to quasi-impossibility for industrial consumers like us to access directly to a LNG terminal. This current situation is a real concern for us, specific reduced conditions to access to LNG terminals and to book storage capacities for degasified LNG would have to be considered.

Question 4:

What in your view explains the low use rates in some regions?

It is linked to an arbitrage of prices between pipelines and LNG and this arbitrage will evolve in time and region.

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?

The energy transition is on the way in Europe, then renewables and energy efficiency effects will continue to increase. Some uncertainty still exists on future gas consumptions, so we recommend the development of rather cheap flexibility tools before expensive investments and then we encourage demand side response.

What options exist in your view to reduce and/or address the risk of stranded assets?

As only 24% of LNG terminals capacities are used, then a first measure to minimize the risk of stranded assets is to strictly limit new investments.

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)?

As said above, only Baltic and eastern countries have still a priority to improve their situation thanks to one or two additional LNG facilities and thanks to a few additional network connections.

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?

The most critical barriers for us to access and use LNG terminals consist in the physical constraint (obligation to storage immediately and massively –which costs a lot--), the high costs associated and eventually the high warranties which are asked.

Several orientations must be developed to facilitate access to LNG terminals:

- More regulation and control seems necessary on the applied terminal costs
- Making easier and cheaper the necessary storage associated to the unloading of a LNG cargo, especially for industrial consumers.

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 behavior? Please describe in detail.

Yes we have encountered regular obstacles to access LNG terminals, each time the main obstacle we were facing was the total cost, including the storage charge and the warranties charge.

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?

As said in the previous answers, beside the necessary associated cost of storage when you buy LNG, cost of warranties is also huge for an industrial consumer (technical damages during the unloading operations being more of the responsibility of the terminal operator than anybody else).

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?

As already said, indeed there is more the EU should do on LNG terminals regulation and on the use of some gas storage.

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?

First of all the EU, far from the gas principal liquefaction facilities (Qatar, Australia, USA, ...) will continue to play only the role of "residual market"... Secondly the Asian consumption, even if it will know a transitory stabilization, is normally to continue to increase due to the development of India for instance.

We still expect a shift away from oil-indexed LNG contracts, at least partially replaced for instance by gas major hubs prices (mixed or not).

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?

The UE should promote and facilitate the possibility of direct LNG supply for industrial consumers.

In order to do so:

- Regulatory measures to facilitate the direct access to LNG terminals (warranties and fees to decrease)
- Regulatory measures to decrease the cost of the necessary associated storage subscriptions (especially for gas-intensive consumers)
- promoting MT/LT direct private contracts between industrial consumers and LNG producers.

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?

Industrial consumers can only recall the real risks they practically know and manage in their processes with natural gas or other liquefied gas, for example in chemical or petrochemical plants. LNG being both a high concentrate of energy in a small volume and a potentially sharp gaseous emission in case of leakage, so no issue for promoting it in ship fuels, but concerns for urban uses.

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?

The minimum required EU action is to precise acceptable standards and required conditions for some new onshore uses of LNG (in vehicles).

Question 12:

Do you think there are any sustainability issues specific to LNG that should be explored as part of this strategy?

In term of optimized LNG technologies, UE standards must exist and be updated to strictly limit CH₄ emissions during the unshipping and regasification operations as a minimum.

What would be the environmental costs and benefits of alternative solutions to LNG?

Please provide evidence in support your views.

The main benefit of LNG is to decrease GHG emissions when replacing fossil fuels as coal or oil and derivatives. The major environmental risk is a significant gaseous emission in the air spread around a leakage ...with potential sharp explosion and fire. This risk can be controlled and geographically limited if LNG is used on board of a ship as the fuel for engines, but cannot be controlled on the same scale on onshore urban vehicle uses.

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?

Gas storage will be more and more necessary in the future in the UE, for 2 major reasons (beyond the winter peaks issue):

- First to face the renewables sharp development with the induced high volatility of gas consumption to compensate,
- And secondly to face the potential LNG development (which will permanently need some free storage capacities to be able to unload quickly LNG cargos).

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)?

Current regulatory conditions are not adequate to ensure an optimized use of gas storage facilities in case of crisis, because no share of these facilities seems possible for the time being between neighboring members of the UE taking in consideration the important differences in gas storage operation processes and rules.

Question 15:

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

First of all, climatic needs of gas storage for winter must be paid in priority by the “climatic” consumers, i.e. essentially households and tertiary building customers.

So:

- Mandatory reserves will have to be assumed (if any) very essentially by these protected customers
- Industrial regular and gas-intensive consumers must not assume this charge (or very partially), in particular because they would probably pay twice! Indeed, in case of a high and sustainable crisis, they could probably be finally interrupted ...in order to allow protected consumers not to be!

Furthermore, The French Minister of Climate and Energy is currently studying a storage capacity auction mechanism with compensation for the SSO (in order to remunerate if necessary the uncovered charges of the SSO) by the TSO tariffs. The potential cost for industrial consumer could be unfair and tremendous. The impacted transport tariffs component must be selected according to the modulation of the final consumption. For this reason, we propose to apply the compensation to the exit fees of the transportation network related to distribution grid.

Again, we insist to quickly develop gas demand side response. No energy transition is possible without energy flexibility, in all areas, including gas. Of course this service, brought by industrial consumers in favor of protected consumers, will have to be remunerated at a decent level, the latter being surely significantly under the cost of investments in storage or LNG facilities. This remuneration must be ex-ante in order to cover the charges that the industrial site will presently assume each year/winter: stock of goods, specific investment, anticipation of maintenance, etc...)

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?

Based on the experience of some Western Europe countries, a storage capacity about 25% of the annual gas consumption seems to be a minimum

What kind of initiatives, if any, do you consider necessary in terms of infrastructure development in relation to storage?

We agree that, according to the more and more deeper integration of gas markets and potential LNG developments, some storage new capacities could be useful in the future in some countries such as Baltic and eastern ones.

Furthermore, we feel that an easier direct access to LNG for industrial gas-intensive consumers will be a necessity (easier access in term of process i.e. tariffication/guarantee).

Otherwise, industrial consumers will never access to LNG opportunities, and some gas-intensive ones could disappear from Europe.

Question 17:

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

We think that the TEN-E Regulation and open dialogue about it are presently proper to make the better decisions.

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?

The UE and MS must decide and realize only the minimum new investments which are required in infrastructures: especially in the present depressed economic conditions, we must be realistic and pragmatic. In addition, the fact that the project “North Stream 2” is now fully decided (to be started already in 2019) will deliver huge gas quantities in the central part of the UE in the future, as the shareholders BASF, Engie, E.ON, ÖMV and Shell of course will have to pay off their investment.

Question 19:

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

The most critical regulatory barriers are the level of price of gas storage subscriptions in some MS, as far as the very high incoherence between regulatory rules in neighboring member states.

Question 20:

Do you think ongoing initiatives and existing legislation can tackle the remaining outstanding issues or is there more the EU could do?

No we don't as said previously.

Do initiatives need to include additional issues further to the ones described here?

More regulated and harmonized storage is necessary, and more commitment in the partnership between MS.

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?

The so high disparities between gas storage prices, gas storage obligations and so on show that top-down measures coming from the UE are necessary.

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.

Again the main difficulties that industrial consumers like us, are facing with gas storage are economic ones.

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 behavior, technical problems) in detail.

Feeding the network from a LNG terminal is of course an issue for the terminal operator and for the consumer. But the major difficulty is to subscribe huge storage capacities at a reasonable price (for unloaded LNG), which is not the case presently.