

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

-- **Answers of UNIDEN** (France) --

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?

We can agree on the principles, but if the investments are essentially focused on the central-eastern countries issue. That means that :

a) **We don't share the idea that the Iberian LNG terminals are a priority solution to ensure the gas supply of Central and Eastern European countries in case of a SoS crisis.** Indeed already so much LNG capacities exist in the Netherlands, Belgium, France, UK and Italy that it can be thought that Iberian terminals will only be a very partial contribution in case of a supply crisis, probably without saturation of the existing Spain to France interconnection capacities (NB: nextly again increased in December 2015).

b) We recommend to take in consideration the recent decision to realize "North Stream 2". Even if that gas will come from Russia, this huge investment will have to become profitable for shareholders. That means that (beside Gazprom) BASF, Engie, E.ON, ÖMV, and Shell will necessarily use it and such will feed central Europe (in its north part) with a lots of gas. This settlement must push to some caution facing projects of major additional investments in this region.

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 pertinent level to assess a SoS policy is probably the "regional" one (ie concerning the area of some neighbouring countries) 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...). This 1/3 ratio seems reasonable for western Europe, but could eventually be increased a little bit for eastern Europe.

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?

Indeed, on the one side, **cheap 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 a recent VIK study (see in appendix) showed that **gas demand side response is significantly cheaper** than new infrastructures, ...new ones which in addition would be probably used at their full capacity only during gas crisis ie every 20 or 50 years! Indeed the VIK exelsheet shows, sector by sector, the level of lost value in case of interruption, frequently about 200 to 300€/MWh, which represents in average only 3.4M€ for a 1TWh/yr plant interrupted during 5 days !

More globally, it's a basics to admit that **energy transition isn't possible without energy flexibility** (of industry as far as of households consumptions, and concerning gas like electricity).

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?

Additional LNG terminals are necessary in eastern part and nordic part of Europe, as long as any new substantial capacity pipelines to Middle East and/or the Caspienne fields doesn't exist in order to constitute a real competition route in alternative to Russia pipeline gas. Nevertheless we consider that, in case of a SoS crisis, eastern Europe countries are too far from the iberian LNG terminals to consider that the last ones will be a significant contribution or solution (thanks to existing and/or debottlenecked pipelines then to be used from west to east).

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

On the one side, the present situation is that LNG facilities are frequently not regulated (for the time being), then this fact generates rather high prices ie dissuasive ones, particularly questioning for industrial consumers submitted to global competition. On the other side 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--, ie obligation to book very high storage capacities –at a high unitary additional cost--). All these factors lead to a quasi-impossibility for industrial consumers to access directly to a LNG terminal. This current situation is a real concern for gas-intensive industrial consumers, at a time when the natural gas price in Europe is still more than double of the US one. So to improve the competitiveness of these industrial gas-intensive consumers, **specific reduced conditions to access to LNG terminals and to book storage capacities for regaseified LNG would have to be studied** and developed in order to let these consumers access to potential MT/LT best gas price opportunities whenever.

Question 4:

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

In the past years LNG price was higher in Europe than pipeline one (coming from Norway/Russia/UK/NL) because of Asia high needs of LNG. Then European LNG terminals without contractual obligations could optimize their activity (as low as technically possible). Some other ones couldn't, because of contractual obligations or physical needs (example: necessity to balance the needs of the south of France balancing zone, because of the bottleneck from north to south of this country).

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 clearly and definitely going forward in Europe, then renewables and energy efficiency effects will continue to increase sharply. As indeed some uncertainty still exists on future gas consumptions, as the budgets of the MS and of the EU are now strictly limited, and as some real progress was already recorded in the past few years in matter of EU gas SoS, again **we insist in recommending to prefer the development of rather cheap flexibility tools before expensive investments** (we promote demand side response, some development and/or improvement of storage facilities, etc...).

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

Presently 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**. new LNG terminals reasonably cannot be considered as a priority in western Europe for the short term. Nevertheless some new LNG facilities in eastern countries and moreover in baltic ones could be considered.

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)?

We confirm our answer to the previous question : western MS of Europe are reasonably secured with the present gas infrastructure and the few new projects already in realization (including LNG terminals, networks, reverse flow facilities), **only Baltic and eastern MS have a priority to improve their situation** thanks to one or two additional LNG facilities and thanks to a few additional network connections. Considering the goals that the EU has set (mentioned again here above), **the sense of history is to stop to waste energy then to push now the development of energy efficiency** (able to decrease the gas consumption) **and of gas flexibility / demand side response** (minimizing so the new infrastructures to build). No real energy transition will be possible without involving everybody (industry, households, etc), then these first measures are also necessary as “educational” processes.

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 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 (facing the industrial risks in terminal operations). 2 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 gas-intensive 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 behaviour? Please describe in detail.

Yes we have encountered regular obstacles to access LNG terminals, in spite of several studies on individual or collective initiatives. Each time the principal obstacle concerned 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 (1st financial barrier to try to lower), cost of warranties are also prohibitive 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 necessary simultaneous 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 unescapable development of India for instance. Thanks to these 2 elements, any decision on new investments must take care that it's not completely sure that LNG prices in Europe will decrease so much as thought from time to time by some analysts. Concerning the indexation of LNG gas prices in the future, 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 gas-intensive consumers, probably aggregated in order to limit their risks, and this especially for gas-intensive consumers. This requires :

- 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.

The specific actions of the UE could perhaps concentrate on helping the partnerships building (thanks to some diplomacy actions), but not more.

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, it seems for us a real concern to promote it as a "classical" fuel for urban vehicles except very specific caution, except thanks to very specific conditions (which will have a cost). No question for promoting it in ship fuels, indeed, but hesitations 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?

According to our reserved answer to the previous question, the minimum required EU action is to quickly 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.

What would be the environmental costs and benefits of alternative solutions to LNG? Please provide evidence in support your views.

The principal benefit of LNG is to decrease GHG emissions when replacing fossil fuels as coal or oil and derivatives (like petrol for cars and kerosene for planes). The major environmental potential “cost” of LNG is the risk of 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 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?

Unescapably 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 at all 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 neighbouring MS of the UE (permitting to use the flexibility of one MS in an other neighbouring one and *guaranteeing a real de facto cooperation in case of crisis*). The quite interesting “study of the role of gas storage in internal market and ensuring SoS” presented at the last Madrid forum of April 2015 (see in appendix) shows that **a lot is still to be done in order to develop a minimum of coherence in gas storage operation processes**:

- mandatory reservations ...vary from zero to 25% of the national annual consumption
- usual filling rates at the end of the winter ...vary from 15-20% (and even 6% in 2013) to more than 60%
- storage tariffs ...vary from 2 to 12 €/MWh (examples, in round figures : about 2 to 3 €/MWh in NL, B, or Italy, 7 in France and 11 in Germany).

In addition:

- storage is regulated in some MS and not in other ones
- strategic storage exists in some MS but not in other ones.

All these huge differences between MS let feel that there is a real concern to ensure SoS in the Energy Union, at a time where everybody feels that storage will have an increasing role to play. Some coherence must be developed between MS (through a “storage code”?).

Question 15:

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

As a precondition, it must be clear that climatic needs of gas storage for winter must be paid in priority by the “climatic” consumers, ie essentially households and tertiary building customers. Thus :

- 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 that protected consumers would not be ! Then the regular industrial consumers must not pay and households (and tertiary buildings etc) must assume their proper gas winter insurance charge.

As far as market based instruments are now concerned, more than ensuring some minimum reserves in gas storage, and considering that LNG availability is uncertain in emergency crisis conditions, we insist again **to push to quickly develop gas demand side response**. Even if it can appear not so “easy” in gas than in electricity, it will necessarily exist in the future : no energy transition is possible without energy flexibility, in all areas, ie in gas as in electricity. 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. Whatever will be the allocation process (invitation to tender, auctions, ...), **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?

Of course the storage contribution will depend on the climatic conditions of each MS. Nevertheless, based on the experience of some western Europe countries, a storage capacity about 25% of the annual gas consumption seems to be a minimum, especially in the present and future circumstances with a progressively deeper integration of EU gas markets (increasing more and more the local flux and their potential volatility) and with a probable development of LNG incomes (pm : to be absorbed transitorily thanks to underground storage capacities).

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 (baltic and eastern ones).

Beyond that, as a recall, we consider that **an easier direct access to LNG for industrial gas-intensive consumers will be a necessity (easier access in term of process ie tarification/guarantee)** at short notice to face the issue of the **sustainable gas price spread between Europe and the USA...** To reach this issue, **we ask that some storage capacity would be more specifically allocated to these LNG flux for gas-intensive industrial consumers , with specific moderated subscription prices especially for them**. Otherwise, industrial consumers will never access to LNG opportunities, with the employment consequences that anybody can imagine.

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 the 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 and weigh those against risks to gas security and resilience? What options exist in your view to reduce the risk of stranded assets?

In order to maintain industrial employment in the UE, moreover in the voluntary EU-ETS conditions that we have collectively chosen, a **competitive** comprehensive gas price is “the” priority (including transmission and storage tariffs). That means that 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, without maximizing realities in our projections. Then,

except for some investments in the baltic and eastern parts of Europe, we think that **the risk of stranded assets would be limited thanks to the following measures :**

- a **real better coherence between MS in rules concerning gas storage** and LNG terminals access (through regulation) and a **committed cooperation between regional neighbouring MS**
- a **voluntary development of gas demand side response**.

In addition, the fact that the project "North Stream 2" is now fully decided (to be started already in 2019) will unescapably deliver and/or ensure 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 from 2019 ! Then the other possible investments to decide for gas infrastructures must be strictly limited, otherwise at the end of the day somebody will have to pay even for stranded assets.

Question 19:

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

The level of price of gas storage subscriptions in some MS, as far as **the very high uncoherence between regulatory rules in neighbouring MS** (fruit of the incumbents past monopoly situations each in their country), associated to **some uncertainty of the real partnership of neighbouring MS in crisis situations**, seem to be the most critical barriers to optimize the use of gas storage in order to face a SoS crisis at a regional or a EU level.

Question 20:

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

Clearly no, as we detailed 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**. To permit the possible use of storage facilities across national interconnections ...could be a way to push de facto for more natural and contractual cooperation between neighbouring 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?

EU-level rules for storage are really necessary. Only national level playing field would maintain for a long time the existing barriers induced by the historical processes of incumbents. **The so high disparities between gas storage prices, gas storage obligations and so on (see the specific benchmark presented at the last Madrid Forum in April) ...demonstrate 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.

The only difficulties that industrial consumers face with gas storage are economic ones : **the price level and the mandatory high reservations in some MS**. Beyond that, specific storage tariffs will have to be developed (recall) in order to facilitate the access of LNG terminal to industrial final consumers.

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.

Feeding the network from a LNG terminal is of course an issue for the terminal operator and for the consumer. As far as are concerned the industrial consumers that we represent, their major difficulty is **to subscribe huge storage capacities at a reasonable price** (for unloaded LNG), which is not the case presently. Something specific needs to be put in place for potential **gas-intensive consumers which will need to access directly LNG markets** in order to compete with gas price such as US ones.

Appendix :

- VIK Demand Side Response study
- Study of the role of gas storage in internal market and ensuring SoS (presented in the Madrid Forum of last April)