

UNIPER's Position on

Follow-up study to the LNG and storage strategy

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Position

Uniper welcomes the initiative taken by the EU Commission to concretize the general statements made in the LNG and storage strategy in a follow-up study. The investigation of Europe's gas infrastructure with a fundamental model to further develop the LNG and storage strategy is a step into the right direction. In particular the EU-wide approach is needed to adequately deal with the well-connected gas market.

We agree with REKK's general recognition in the report that gas storage provides flexibility, network support and contributes to security of supply. But we regret to see that the model itself does not consider the full value of storage. The full arbitrage value (intrinsic and extrinsic), insurance and system values need to be recognized and defined in a valid gas model for Europe. This suggests in the modelling results that the market might lead to substantial underutilization of gas storages not only in Germany.

We would like to take the opportunity to answer the two questions on storage and comment on the two statements on LNG provided with the agenda of the Stakeholder Workshop.

1 Introduction

In the above-mentioned study infrastructure priorities of the EU's LNG and Underground Storage Strategy were tested under normal and security of supply scenarios, under high and low global LNG supply and high and low demand projections. The authors inter alia conclude:

- **LNG** can contribute to mitigate supply crisis problems with additional spot cargoes providing an additional 17 TWh/month to the northern EU-supply route.
- Peak utilization of **LNG** terminals in high demand months show no or few congestions on the EU terminals.
- **Storage** plays an important role in providing seasonal flexibility.
- **Storage** contributes the most under security of supply scenarios.
- **Storage** use is decreasing with time despite obligations in some countries.
- Modelling shows, **storage** working gas usage of 600 -745 TWh from 1100 TWh available is sufficient to cover all supply risks, resulting in huge risk for low utilization of 32 to 45% of all EU storage capacity.
- This results in financially critical situations for underutilized storages with focus on those facilities operated without any obligation or regulatory measures, in particular facilities in Germany, Austria and France.

2 Storage

2.1 The full value of storage. Is security of supply at risk?

DG Ener question: The strategy identified actions to ensure a level playing field for storage operators and to eliminate barriers to cross-border access in order to improve the business environment for storage operators. There are diverging views about whether the closure of some storage sites is a logical market development or the market fails to consider the whole value of storage. Is security of supply at risk as a consequence?

Uniper answer: Storage facilities provide value to gas customers in four key ways:

- Seasonality – storing gas in summer (lower demand periods) and withdrawing gas in winter (higher demand periods).
- Flexibility – supporting day to day and week to week variations in gas demand away from the average demand that might be expected.
- Insurance – avoiding risks to security of supply and extreme prices driven by factors such as weather, asset failures, and political interventions.
- System value – reducing the need for further network expansion, particularly to deliver gas behind pipeline bottlenecks, and supporting pressure and congestion management.

Current market arrangements in Germany allow storage to be paid for the value of the seasonality and flexibility that they provide. However, because shippers are not affected from the full costs of loss of supply, storage companies in merchant markets do not receive the full social value of the insurance that they provide, and are not paid for the system value that they deliver.

The current market situation in Germany, where storage companies can only capture part of the value they deliver to the system, will result in the closure of storage and will lead to the reduction in the availability of storage assets (and physical availability of gas where other options are not available) to be used in different crisis scenarios.

Uniper asks to pay attention that closure of storages will negatively impact the current high level of Security of Supply in Europe. Considering the long lead times to rebuild storage facilities, it seems an urgent matter to react and adapt now as a gas storage facility can quickly be decommissioned.

2.2 Storage obligation and an alternative solution

DG Ener question: Storage related security of supply measures, such as storage obligations or strategic storage exist in several member states in order to keep storage capacity in place. Such measures have an impact not only on the member state in question but also on neighboring member states. In addition, their effect is not limited to security of supply (be it negative or positive) but also on cross-border trade. Is there a more market-friendly alternative solution available for member states? Would such harmonized solution on the EU level be a good idea?

Uniper answer: Regarding the need of storage related Security of Supply measures e.g. storage obligations or other forms of safeguarding minimum storage levels we want to provide some important facts to be considered.

In the past in Germany but also in most other EU countries with high gas import dependency storages were churned frequently by 2/3 of their available working gas volume on an annual basis depending on yearly demand. This fluctuating seasonal churn depends on normal changing weather conditions and correspondents with the availability of actual import infrastructure.

During frequently occurring cold spells, storages show a second quality provided to the SOS level in Europe. In high demand situations where peak capacity is needed on very short notice, storage contributes by delivering more than 50% of the daily demand, faster than any LNG cargo can or might reach a terminal. This is frequently recorded in Germany e.g. in Jan/Feb 2017 and other EU-countries. In order to provide such delivery rates out of storage, beneath the annually churned volumes a minimum filling level of $> 1/3$ of the working gas capacity is required, which should only be reduced at the end of the winter season or, if necessary, in a critical supply situation with major failure of the supply chain. Neglecting the last 1/3 of storage capacity and assuming them as "not used" respectively not needed leads to a significant risk not being able to deliver sensitive (protected as industrial) customers even in normal winter demand situations or with a sudden peak demand.

Under pure market regimes as given in Germany storage users have no economic incentive in churning 2/3 of storage capacities and keeping 1/3 for sufficient delivery rates till end of winter season. This is also reflected in decreasing seasonal spreads as an indicator of oversupply of flexibility.

This fact is recognized by many national SOS regimes in neighbouring countries with different measures implemented like booking obligations or strategic storage obligations. This is not the case in Germany or Austria and fully left up to the market. As markets are well connected and cross border trading shall not be restricted by different regulatory rules on national level we are convinced that there should be a harmonized level playing field on EU level to safeguard sufficient withdrawal capacity till the end of the winter season.

REKK proposes to introduce a concept where suppliers shall receive an incentive to physically meet their supply contracts in all supply scenarios otherwise they will be obliged to pay a firm monetary compensation to their customers (Value of Lost Load) in case of a supply cut. The effectiveness of this approach strongly depends on the concrete compensation regimes and whether they are implemented in a harmonized way across markets and it does not per se guarantee minimum storage levels till end of the withdrawal period. There are also several drawbacks associated with the VoLL concept. An extreme financial liability faced by short-term shippers in a crisis could lead to financial distress and adverse impacts on competition. Market participants cannot accurately determine the probability of a crisis appropriately due to difficulties of assessing low probability events. Another aspect is, that transit volumes might not flow into the affected market if arrangements in other countries take precedent. Different regimes in Europe could lead to free riding effects.

Uniper supports clear regulatory measures on EU level incorporating both physical security (i.e. avoiding involuntary interruptions of supply) and price security (i.e. providing energy at reasonable prices to consumers) by setting minimum storage levels harmonized across markets in Europe.

3 LNG

3.1 Future price and supply dynamics

DG Ener statement: Price discovery and transparency are key drivers for a more liquid and transparent global LNG market. There are diverging views on the future benchmark for global price setting. One view is that LNG pricing in the future is expected to be based on Henry Hub, with a differential of Henry Hub plus something, as a result of the large volumes of LNG from the USA. Prices to NW Europe would then be in a range of Henry Hub + liquefaction cost + transport to the NBP/TTF hub. An alternative view is that LNG prices will be rather set on the basis of a larger set of benchmarks, in Europe most probably TTF or NBP, with Qatar being an important swing supplier.

Uniper comment: The first view is not sustainable neither for projects which require an investment decision in the future nor on the spot trading of LNG. The current market prices (i) LNG world market prices and (ii) the respective Hub prices in the consuming market such as TTF are all

significantly below the Henry Hub cost plus price structure. This mismatch results in significant losses for the LNG buyers of US volumes.

The alternative view provides for a long-term sustainable commercial structure, which is very similar to pipeline contract prices/projects.

3.2 Instruments for flexibility in the global LNG market

DG Ener statement: The main trade-off characterising the operation of the LNG market is the balance between liquidity in LNG trading and security for upstream investors in order to sanction final investment decisions. In this context it is useful to explore the reasons for the emergence of portfolio traders and identify those practices (including the use of swaps) that make this new business model appropriate for addressing the liquidity-FID trade-off.

Uniper comment: Relying on the spot market when building new LNG production facilities does not match the investment requirements of the equity investors and commercial banks financing billion USD liquefaction projects. LNG projects are too capital intensive to be sanctioned for the spot market only. A larger portion of long-term LNG off take volumes is for the foreseeable future required to justify an FID. In the end it is a result of the risk appetite of the financing commercial banks on one side and on the other side the owners of the upstream reserves, producers of LNG and buyers of LNG how their portfolio of long-term and short-term contracts will be structured.