

CEER Citizens' Q&A

CEER Analysis on the role of LNG to improve security of supply

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1 What is LNG?

LNG stands for Liquefied Natural Gas. LNG is natural gas that is cooled until -162°C , when it becomes a liquid, and then it is stored around atmospheric pressure. The natural gas is a hydrocarbon that mainly consists of methane, although it usually contains a variable proportion of nitrogen, ethane, CO_2 , H_2O , butane, propane, mercaptanes and traces of heavier hydrocarbons. This proportion varies depending on the fields in which the gas is found. Methane may constitute up to 97% of natural gas.

Europe depends largely on gas imports, some of which reaches us in the form of LNG. This form of gas is a growing part of our energy mix in Europe helping: 1) to ensure we have the amount of gas we need for consumption; and 2) to diversify our gas sources so as to reduce dependence on any producer (security of supply, SoS). It also promotes price-based competition (competing sources of gas) which should ultimately translate in better prices for customers.

LNG is a key source of gas supply diversification. The role of LNG to security of supply has to be considered in light of the characteristics of the LNG chain, where logistics remain rather rigid upstream on a short term basis while regasification terminals offer flexible services based on LNG storage and trucks.

2 What does the report propose for LNG?

CEER believes that well-functioning wholesale gas markets can deliver the best outcome for customers: adopting market-based measures should allow gas to move freely where is needed following price signals, so this is the first action to ensure security of supply. When market-based mechanisms alone cannot guarantee supplies, the contribution of non-market-based measures should be analysed. The principles of transparency, non-discrimination, standardisation and harmonisation must be followed when designing the measures to take by policy makers in cases of emergency.

Following this lead, the priorities for security of gas supply are to ensure the best possible preparation and plans in order to improve resilience to disruptions in gas supplies, assure that strategic infrastructures are protected and that the most vulnerable Member States are supported.

It is particularly relevant to reinforce the role of LNG markets in Emergency Plans: enhancing LNG movements and cooperation between Member States, crisis management should be facilitated.

3 How does it work?

CEER actively contributes to the debate on security of supply. In particular, this report investigates the potential contribution of LNG to European Union SoS. The analysis of LNG terminals in Europe (available capacities, access transparency, rules applied and services offered) and the assessment of global LNG market dynamics (supply, demand, prices, trade and trends) explores the role that markets can play in attracting LNG when needed.

The purpose is to assess how LNG can be mobilised to reinforce security of supply both in the short and in the long term, taking into consideration that a transition to more dynamic and flexible LNG markets is currently under way. CEER analyses how LNG can be included in a regional framework and recommends what measures could be considered by policy makers in case of emergency. Actions are focused on giving more transparency and visibility to LNG availability and on providing further information about terminals. LNG infrastructure operators should offer information in a standardised way to the market.

In addition, LNG trucks can deliver LNG to remote areas and satellite plants can be used to supply gas (virtual pipelines) in order to mitigate the effects of gas disruptions. These measures are particularly useful in countries where the gas pipeline network infrastructure has not been fully developed or where the investment cost for connecting gas users to the grid, or to meshed it, is uneconomic. Moreover, the floating storage regasification units (FSRUs) can be a technical solution to be implemented in case an emergency for lack of supply is forecasted.

An increased cooperation between LSOs and TSOs at EU level is of utmost importance. During a supply crisis, LNG could be the (interim) missing link to connect regions which are not adequately interconnected with major hubs.

4 Why is this important for energy customers? What is the impact on energy customers?

Most Europeans need gas in one way or the other. End consumers use gas in their households for heating and cooking, industrial consumers use gas in production processes and electricity producers use gas to fuel their gas-fired power plants. If security of gas supply is threatened, and gas supply is cut, households risk being left without heating in winter. In particular for those consumers who cannot switch to alternative sources of energy, it is important to ensure a high level of security when it comes to gas supply.

Transparency for LNG terminal users is of paramount importance to provide transparent, non discriminatory and objective access to the services offered in these facilities. Non discriminatory access will facilitate competition in the European gas market and competition will enable better choices for final consumers.

CEER will continue providing recommendations and information to stakeholders with the objective of ensuring that LNG can enhance the security and competitiveness of gas supply for European consumers.