

EU strategy for LNG and gas storage

SUMMARY

In February 2016, the European Commission presented an EU strategy for liquefied natural gas (LNG) and gas storage, as part of its sustainable energy security package. This builds on existing EU legislation and supports closer consideration of LNG and gas storage issues in proposed or future EU legislation covering the gas sector.

Some EU Member States have significant spare capacity to import LNG, whose global prices have fallen rapidly over the past two years, making it far more competitive vis-à-vis pipeline imports. LNG production is expected to increase substantially in the coming years, with predictions of a supply glut and a sustained period of low prices.

The LNG strategy considers how the EU can take advantage of this changing market in order to develop a more diverse, secure and affordable gas supply. The strategy proposes a more optimal geographical distribution of LNG import capacity, improved cross-border gas interconnections, full implementation of the internal gas market and closer international engagement with countries that are major LNG suppliers or importers. The strategy notes that LNG has considerable potential as a transport fuel, with far lower air pollution and carbon dioxide emissions than oil-based equivalents.

Improved cross-border access to gas storage and more flexible storage options would enhance the potential benefits deriving from increased LNG use. Separate studies of gas storage produced for the Parliament and the Commission argue that storage levels are generally adequate in the EU, despite the very different regulatory regimes adopted by Member States. Gas storage in the EU would benefit from improved cross-border access and a focus on storage issues in regions with supply vulnerabilities.



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Introduction

The European Commission released a [Sustainable Energy Security Package](#) on 16 February 2016, which included a Communication on an [EU Strategy for Liquefied Natural Gas \(LNG\) and Gas Storage](#). This included a [Staff Working Document](#) that summarised the findings of a 2015 [public consultation](#) organised by the Commission's Directorate-General for Energy to help develop this new strategy; provided an overview of EU Projects of Common Interest (PCIs) in [energy infrastructure](#) that involve the creation or expansion of LNG terminals and gas storage facilities; and assessed LNG potential in Europe based on different levels of market integration. The LNG and gas storage strategy seeks to incorporate these issues into proposed or future EU legislation.

Market for LNG in Europe

LNG imports to Europe

The nature of LNG and its changing role in European gas markets is the subject of a dedicated European Parliamentary Research Service (EPRS) [briefing](#). EU Member States currently have no LNG *export capacity*, i.e. they do not produce any LNG for export. However, many have substantial LNG *import capacity*, i.e. facilities to receive LNG imports from suppliers outside the EU. According to the most recent [gas market report](#) by the European Commission, LNG currently accounts for 13% of total gas imports to the EU, and more than half of LNG imports to the EU come from Qatar. The vast majority of natural gas exported to the EU comes through pipelines from Russia, Norway and Algeria. EU gas production has fallen considerably, including in the largest producing countries (United Kingdom, Netherlands). Both the Commission and the International Energy Agency (IEA) now predict that gas imports to the EU will rise until 2030, even if gas demand within the EU remains stagnant or declines. The EU has significant spare LNG import capacity (only 20% is currently utilised), yet the location of LNG terminals is not well distributed geographically. The bulk of LNG import capacity is located in north-western Europe, the largest importers being Spain, France and the UK (and to a lesser extent Italy, Portugal, Belgium and the Netherlands). There is far less LNG capacity across central and eastern Europe, where pipeline supplies remain heavily dependent on Russia. Some Member States can obtain LNG indirectly, through pipelines with neighbouring countries, whereas others are developing their first import terminals. These recently became operational in Lithuania and Poland, and are being developed (with potential PCI funding) in Croatia, Estonia, Finland, Ireland and Malta. According to Gas Infrastructure Europe, there are several [plans](#) to build new terminals (or expand capacity at existing ones) in EU Member States that already have some import capacity.

Changing price differentials

Volumes of LNG flows to Europe are heavily affected by price differentials across global markets. LNG prices in Asia (and to some extent in Latin America) are typically higher than in Europe, which has access to pipeline supplies that are usually cheaper than LNG imports. Yet since mid-2014 the 'Asian Premium' for LNG has narrowed sharply and there is currently little difference in prices between European and Asian markets, prompting [more LNG supplies to come to Europe](#). For some LNG exporting countries, higher transport costs to Asia now make the European market more lucrative. Price differentials between LNG and pipeline imports in Europe have also fallen considerably, in some cases LNG imports are now cheaper than pipeline supplies. If these trends endure, they could sustain an increase in LNG supplies to Europe over the coming years. Some LNG price changes are also driven by broader economic factors, such as the collapse of the oil price (to which many LNG prices are still indexed) and the slowdown

across emerging market economies. Global LNG prices are also being affected by the expected reduction in demand from Japan (largest global market for LNG), as it re-starts several nuclear reactors that were closed after the Fukushima incident in 2011.

Increasing LNG supply

According to the IEA, the global LNG market is being [flooded with new supply](#) at a time of subdued demand. Global LNG export capacity is expected to increase 40% by 2020 (50% according to the European Commission), with the USA and Australia set to surpass Qatar to become the world's leading LNG exporters. The IEA predicts a sustained period of low gas prices (at least until 2020, but possibly until 2030), which will become increasingly uncoupled from oil prices. This offers EU Member States an unprecedented opportunity to diversify their gas supplies and benefit from sustained low prices. Yet their ability to do so hinges on developing adequate LNG import capacity, a functioning internal market for gas, and the possibility to store LNG to meet fluctuations in demand.

LNG strategy

The EU strategy for LNG and gas storage has several objectives in line with existing or proposed legislation in the energy field, including proposed revisions of the [Regulation on Security of Gas Supply](#) and the [Decision on Intergovernmental Agreements \(IGAs\)](#), which were published alongside the LNG and gas storage strategy in February 2016.

The Commission argues that LNG can contribute significantly to the security, resilience and competitiveness of gas markets in Europe, but this requires the EU and its Member States to ensure the necessary infrastructure is in place to access international LNG markets; complete the internal gas market to attract LNG supplies; and step up efforts to cooperate with international partners (suppliers or other importing countries) in order to develop a truly global LNG market. International partnership includes monitoring whether IGAs that cover LNG supplies are in full compliance with EU law.

Greater use of LNG as a transport fuel would help to reduce air pollution, since LNG has a much lower sulphur and nitrogen content and produces far fewer carbon dioxide emissions than (more widely used) transport fuels based on petroleum. LNG could play a similar role in decarbonising the heat and power sector. The Commission calls on Member States to fully implement [Directive 2014/94/EU on alternative fuels](#), which plans LNG refuelling points on transport corridors, maritime and inland ports.

The Commission confirms that LNG infrastructure in the EU is under-utilised and not optimally distributed. EU funding for PCIs in energy infrastructure is helping to develop new LNG terminals (where needed) or providing additional capacity for existing ones, as well as improving cross-border gas interconnections, all of which can maximise the regional benefits of LNG for security of supply. PCI funding can be used to leverage commercial loans from both public bodies and the private sector. Yet infrastructure improvements need to be complemented by full implementation of the internal gas market. Here the Commission highlights the need for greater market competition, more use of liquid gas hubs, stronger regional cooperation and risk assessment, as well as market based tariffs and improved cross border access to gas storage facilities.

Gas storage strategy

Gas storage issues feature somewhat less prominently in the strategy document than LNG supplies and infrastructure. To some extent they are inter-related: increased LNG supplies and enhanced import capacity require greater access to flexible storage options (such as [Floating Storage Regasification Units](#)), alongside improved cross-border access to storage facilities. Both types of infrastructure are eligible for funding as PCIs.

Two recent studies by the European Parliament and the European Commission find that gas storage in Member States is working well on the whole but outline some areas for potential action at EU level. The 2015 EP study on [energy storage](#), produced for the Committee on Industry, Research and Energy (ITRE), finds that gas storage capacity has increased by 20% across Europe since 2009, while gas demand is expected to decrease between now and 2030, a combination that is likely to result in high storage volumes. Overall the EU has sufficient gas storage capacity, but there is scope for improved cross-border access and a need to address storage issues in regions with supply vulnerabilities. The 2015 study on [gas storage](#) produced for the Commission's DG Energy points out that gas storage is both costly and complex (especially compared to the much lower costs of storing oil), and Member States have developed very different regulatory regimes to manage it. Imposing harmonised mandatory storage obligations across the EU would generate far higher costs than benefits, indeed plentiful storage capacity can be found in some Member States that lack any mandatory obligations (e.g. Germany and the UK). Varied national approaches to gas storage are acceptable but greater cross-border cooperation would also help to improve supply security.

Next steps

The Commission will provide an update on progress in implementing this strategy as part of its annual State of the Energy Union [report](#) (next expected in November 2016). The ITRE committee is [preparing](#) an own-initiative report on the LNG and gas storage strategy (rapporteur: András Gyürk, EPP, Hungary). The draft report is to be discussed in the ITRE meeting on 13-14 June 2016, with 15 June set as the deadline for amendments. The Committee vote is expected in September 2016 and the plenary vote later in 2016.

Main References

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