# ENI RESPONSE TO THE PUBLIC CONSULTATION ON AN EU STRATEGY FOR LIQUEFIED NATURAL GAS AND GAS STORAGE

## Introduction

**eni** welcomes the opportunity to contribute to the work the European Commission is carrying out on an EU strategy for liquefied natural gas and gas storage.

**eni** supports the Commission's focus on security of gas supply as ensuring a secure and reliable supply is essential to allow natural gas to keep playing its central role in the EU energy system.

**eni** strongly believes that natural gas is set to play a key role in the EU energy system in the future too - as also stated by the Commission in the consultation document - in light of its ability to meet affordability, security and sustainability objectives all at once. However, the pessimistic prospect for the gas demand included in the Annex could send the wrong signal to both investors and end-users, in turn, possibly having a negative impact on the market. At the same time, this would also be in contrast with the current renewed focus of the Commission on security of gas supply.

A properly functioning, well-interconnected and liquid gas market should be the primary instrument to attain a sufficient level of security of supply. Significant improvements have been achieved recently in this regard. Europe has been working on progressively turning 28 separated energy markets into a "single EU market", which should remain the priority in order to increase both competitiveness and security.

LNG and gas storage are key "security instruments", which are part of a wider range of tools potentially available (among them, flexible pipeline supply). A market-based approach to security of supply would allow all available "security instruments" to compete based on their respective characteristics and corresponding ability to cover specific security needs. The market should also remain the main driver for investment decisions, although new initiatives, e.g. small scale developments, may be worth to be specifically supported.

As far as the commodity market is not able to provide the desired level of security, Member States and/or Regulatory Authorities should develop and implement ad-hoc innovative pro-security "market-driven mechanisms". These mechanisms would be more efficient and provide the same results of Storage Obligations, also in Member States with a very low level of security due to specific infrastructure and market conditions (East Europe).

## LNG

### LNG in the EU today

*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? 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*

Infrastructure adequateness is a necessary condition to achieve security of supply. Over the last decade, Europe has been investing in new pipeline and LNG projects, which has strongly expanded the European import capacity.

As a result, the current EU import capacity (via pipeline and LNG) would in theory be sufficient to meet European gas needs for many years to come.

Against this background, the immediate priority for Europe shall be to promote an efficient use of already existing LNG terminals – whose utilisation rate is low – before considering supporting investments in new regasification plants. This could be achieved through a further development of internal interconnections, which would allow gas to flow from where it enters the EU market, towards where it is most needed.

It is worth highlighting that this approach should be developed also to let gas, that comes to Europe via pipeline, flow from one country to the neighbouring ones.

In particular, the development of a South-to-North corridor would be crucial. This would comprise the deployment of both interconnections between Spain and France, which would make Spanish regasification capacity available to supply other European markets, and the reverse flow project connecting Italy to France, Germany and Belgium. The latter would make possible a further diversification of supply sources by allowing African and, in the future, also Caspian gas to flow through Italy, towards the rest of Europe.

European security of gas supply will also improve, directly or indirectly, thanks to recent significant gas discoveries in the East-Mediterranean and North Africa (Egypt, Israel and Cyprus). The deployment of these new discoveries will also take advantage of the existing infrastructure that will contribute to the competitiveness of the potential new supply.

LNG and pipeline gas play a complementary role in terms of contribution towards a greater energy security of the European gas system (see also answer to Q10) and shall be allowed to compete on a level playing-field.

*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? 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?*

As stated in answers to Q1 and Q5, security of demand is a prerequisite for new investments in LNG which are significant. The EU should focus on existing bottlenecks across the EU and support any initiative to make access to existing regasification terminals not unduly expensive for market players.

*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*

As highlighted by the ACER's Report on the progress of Projects of Common Interest ("PCIs"), more than half of the projects that the EU recognised as a priority in 2013 are currently behind schedule.

Therefore, there is room for further EU action in term of a more effective support for PCIs, facilitating a proper deployment of the needed regulatory, administrative and financial support.

There should be a clear commitment from the Commission in terms of looking after the priority projects in the different phases of their development, as well as facilitating the removal of potential obstacles to their timely completion.

In this regard, ad hoc initiatives – such as the one related to the Spain-France interconnection – are useful and should be also undertaken for other projects along the South-to-North corridor.

Furthermore, since PCIs are by definition beneficial to more than one Member State, their costs should be properly shared based on the distribution of benefits and following appropriate cross-border cost allocation decisions.

*Question 4: What in your view explains the low use rates in some regions? 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? What options exist in your view to reduce and/or address the risk of stranded assets?*

The low use rates of LNG terminals in some regions are mainly the result of two factors. First, in the past, spot LNG prices have usually been higher than piped gas ones – also due to global competition in attracting LNG supply, especially on a short-term basis - and therefore normal market dynamics may have contributed to keep use rates at a low level.

In addition, EU cannot be considered yet as a "single energy market". Infrastructure bottlenecks inside the EU, combined with the concentration of existing LNG regasification capacity in some regions more than in others, impede natural gas to flow where it is needed, when it is needed, despite the abundant regasification capacity.

When planning supporting new investments, the non-fully efficient use of existing infrastructure and the potential upsides that could be secured by improving the internal interconnections – should be fully considered.

Doing so is necessary also in order to avoid an undue increase of the risk of stranded assets. In a context of uncertain gas demand, the cost of existing, and additional, infrastructure would have to be recovered over a possibly weak consumption base. This would lead in turn to higher end-user gas prices and possibly to a further reduction in demand, triggering a "vicious circle" that should be avoided.

The sunk costs associated with gas assets, possibly becoming stranded, should also be considered when designing policies aimed at transforming the energy system (see also answer to Q5).

*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)?*

It is worth highlighting that reducing the dependency on imported gas would not necessarily reduce the exposure to price spikes, but rather the opposite if, as a result, the European supply portfolio is not sufficiently diversified.

**eni** supports the European commitment to reduce greenhouse gas emissions. However, this objective should be pursued by adopting a gradual and balanced approach. There is a need for a global commitment and, in addition, the cost of current and future measures (including possible sunk costs) should be properly taken into account.

A sustainable energy mix is based on a more efficient use of energy, as well as on the utilization of cleaner energy sources.

Natural gas can play a key role in this regard. Indeed, it can help reduce both global and local pollutants in all consuming sectors. In addition, gas is the best option to ensure efficient and reliable back-up generating capacity (see also answer to Q12).

In all consuming sectors, the existing technologies using natural gas as a fuel, which could immediately reduce the environmental footprint, are not widely deployed yet. These technologies include high efficiency appliances, distributed co-generation systems, heat pumps, condensing boilers and natural gas vehicles. On the contrary, a strong policy support to end-use electrification could turn out to be ineffective in reducing $CO_2$ emissions at a reasonable price, in particular in those Member States with less sustainable energy mix.

## Potential entry barriers for LNG

*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? 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.*

It is necessary to overcome any possible technical, regulatory and commercial barrier e.g. related to loading operations.

*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?*

See answer to Q6.

*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?*

See answers to Q1 and Q3.

## International LNG markets

*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?*

The LNG market is set to increase sharply in the next decade, also due to the wave of new liquefaction plants under construction (mainly in the US and Australia). The restart of nuclear capacity in Japan and the slowdown of some Asian economies are reducing the expectations of LNG consumption growth in Asia. Thus, more LNG could be available for the European market and it will compete mainly with other flexible pipe suppliers (e.g. Russia) to balance the decline in indigenous production and the expected slow recovery in the EU gas demand.

*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?*

LNG is key to enable the gas industry to evolve from a regional to an increasingly global business.

LNG supply is able to provide benefits to the EU market by widening the portfolio of possible gas suppliers and thus enhancing diversification.

However, due to its global nature, the LNG market also presents risks in terms of higher exposure to global competition.

In addition, in times of stress, LNG may deliver benefits, but it should be taken into account that its response lead time may be relatively long and, if the crisis is extended beyond Europe, additional supplies may be expensive.

Instead, subject to contractual conditions, pipeline gas supply may offer a form of flexibility more ready to be triggered and less expensive.

Therefore, Europe would benefit from a balanced portfolio of "security instruments", which compete on a level playing-field.

Considering the international dimension of the energy market, the EU Institutions have an important

role to play in facilitating international cooperation and establishing a political context conducive to strengthened partnerships.

In particular, the EU should give the right signals in terms of security of gas demand and, more in general, work on building a credible platform for cooperation between "consumers" and "producers". The Euro-Mediterranean Gas Platform, launched in June this year by the Commission, is a step in the right direction.

That being said, commercial negotiations shall remain of the exclusive competence of market players.

### LNG technology issues including LNG use in transport

*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? 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?*

With reference to the 2030 scenario for gas demand, the major development prospects for LNG are in the fields of heavy duty transport and maritime shipping. Use of LNG in transport could effectively contribute to achieving the EU's environmental targets and to a general improvement of the air quality in the EU, as its polluting emissions are extremely low.

The development of LNG use in the transport sector depends on the presence of the following enabling factors:

- a favorable fiscal regime in line with the environmental advantages of natural gas;
- commercial availability of engines and devices at competitive economic conditions;
- consistent EU's technical and safety regulatory framework.

Further measures could support the development of the market:

- the full implementation of the European Commission Directive for the deployment of the alternative fuel infrastructure;
- access rules to harbors and urban environmental zones (e.g. dedicated traffic lanes, free parking...);
- extension of the "Emission Control Area" regime;
- no restrictive regulations (e.g. functional unbundling, which imposes the separation of retailers from the owner of the infrastructure) in line with other fuels regulatory frameworks;
- public procurements prescribing the use of Natural Gas vehicles;
- natural gas and converted to gas vehicles should benefit from an environmental bonus on tax duties and other charges (e.g. exemption from taxi access fee to airports);
- institutional support through pilot projects and industrial agreement.

### LNG sustainability issues

*Question 12: Do you think there are any sustainability issues specific to LNG that should be explored as part of this strategy? What would be the environmental costs and benefits of alternative solutions to LNG? Please provide evidence in support your views.*

Natural gas – including in the form of LNG – would necessarily play an important role in the path towards a low carbon economy:

1. gas/LNG allows for a relevant emissions reduction, when it displaces coal. In particular, in

power generation gas emits half of the $CO_2$ and significantly less other air pollutants (e.g. CO, nitrogen and sulphur oxides, particulates), compared to coal;

2. with intermittent renewables achieving an increasing share of the generation mix, a substantial flexible back-up capacity will be necessary. Among all thermal options, gas is the preferred fuel, as it can respond very quickly to supply fluctuations in RES power generation, thus guaranteeing reliable energy supply.

In recent years, the price advantage of coal compared with gas led to a significant increase in coal utilization. In fact, the risk is that the European power sector will lock in a mix of coal and renewables, instead of moving towards a more sustainable integration of renewable and flexible gas back-up capacity.

Against this background, the EC should consider an improvement of its carbon policy, which should be able to promote the use of low carbon fuels.

## STORAGE

### Internal market constraints and challenges for storage

*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?*

The demand for flexibility of gas supply in Europe will increase in the future primarily as a result of two trends.

First, the fast-growing role of renewables in the generation mix translates into an increased need for flexible back-up capacity. Gas-fired plants are best placed to perform this task.

Second, there is a need to replace the flexibility historically provided by a currently declining European gas production.

Gas storage is a very important provider of flexibility, but it should compete with alternatives (such as diversified and flexible supply portfolios, including pipeline gas and LNG) on a level playing-field.

*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)?*

Gas players set their storage booking levels based on their commercial objectives (e.g. to take advantage of arbitrage opportunities). Therefore, it is relatively improbable that a commercial player decides on its own initiative to spend money today, in order to cope with a very unlikely future negative scenario. Conversely, it is fully understandable that a Member State would like to safeguard its protected customers also under very improbable circumstances. As a result, commercial fill level may not be in line with the level of security Member States desire.

Also a study[1] commissioned by the Commission and recently made available reveals that *"the "insurance" value (of storage) seems to be increasingly ignored by private operators"* with an already visible impact on their willingness to pay for storage.

Regulation 994/2010 tries to solve this issue by introducing Supply Standards, i.e. obligations on commercial players to supply their protected customers in a set of predefined extreme scenarios. However, this approach has a number of shortfalls, as already highlighted by **eni** in its contribution to the public consultation on the revision of the Regulation. For instance, but not limited to, a difficult enforcement of the Supply Standards and the risk of moral hazard, i.e. commercial players may decide to take the risk of being sanctioned because they consider the event highly improbable.

1 "The Role Of Gas Storage in Internal Market and in Ensuring Security of Supply", http://ec.europa.eu/energy/en/studies/role-gas-storage-internal-market-and-ensuring-security-supply

Furthermore, this approach does not fully address the technical complexity of security of supply and it is not cost-efficient. Indeed, whereas it devolves upon natural gas undertakings supply requirements based on their customers' portfolio, it does not recognize the possibility to pool security tools, a measure that would reduce the total cost of security.

A more efficient and effective alternative would be the development and implementation of innovative pro-security "market-driven mechanisms". In particular, **eni** proposes the following one:

- transmission system operators should procure "security instruments" through a market-based, transparent and non-discriminatory procedure;
- commercial players should offer their "security instruments" on the "security market". They may include - non-exhaustive list - gas in different types of storage systems, diversified and flexible supply portfolios (pipe and LNG), flexible indigenous production sites;
- the "security market" would allow the "security instruments" to compete, based on their specific characteristics (e.g. cost and lead time).

This mechanism would be able to achieve security targets through a market-based approach. If well designed, it may also provide the right price signals for efficient infrastructure development.

Adopting this approach would also mean that interventionist measures are no longer necessary.

In the interim period required to deploy such mechanism, more efficient alternatives to Storage Obligations should be introduced. In particular, **eni** supports the implementation of a storage allocation model based on (i) auctions and (ii) reserve prices able to ensure a level of gas in stock in line with security requirements.

*Question 15: As an alternative to mandatory reserves, how could market based instruments ensure adequate minimum reserves?*

If supply flexibility is provided by Storage Obligations, the market is not able to generate the price signals needed to incentivize market-driven storage bookings.

Therefore, Storage Obligations have an adverse effect on market functioning as well as imposing an undue burden on market players.

On market-based instruments to ensure adequate minimum reserves, see answer to Q14 .

**Storage infrastructure**

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

The needed level of gas storage infrastructure in a Member State depends on a number of factors specific for each country and cannot be defined once and for all in advance. These factors include security and flexibility needs (which also depend on demand trends) and availability of alternative security instruments.

The role that storage should play among all the other alternatives shall preferably be determined through market-based mechanisms.

In terms of optimization of existing storage infrastructures, a proper development of internal interconnections would bring benefits, as it will allow storage located in one Member State to contribute to the security of neighboring countries too.

*Question 17: Do you think, in addition to the existing TEN-E Regulation, any further EU action is needed in this regard?*

The Commission should take an active role in the removal of non-adequately justified interventionist measures, and particularly of Storage Obligations.

In addition, the Commission should promote an initiative aimed at defining innovative pro-security "market-driven mechanisms" to be introduced when the commodity market is not able to provide the required level of security (see answer to Q14).

*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?*

The immediate priority for Europe should be to promote an efficient allocation of flexibility sources among balancing areas by means of a proper development of internal interconnections and a more market-driven approach to security. On the risk of stranded assets due to demand uncertainty, see answer to Q4.

### Regulatory framework and potential barriers for storage

*Question 19: What do you think are the most critical regulatory barriers to the optimal use of storage in a regional setting?*

The efficient use of storage in a regional setting would require more physical integration (through interconnections), a market-based approach to security (with removal of Storage Obligations) and a sufficiently harmonised regulatory framework.

*Question 20: Do you think ongoing initiatives and existing legislation can tackle the remaining outstanding issues or is there more the EU could do? Do initiatives need to include additional issues further to the ones described here?*

See answer to Q17.

*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?*

Where there is a competitive market for storage services, negotiated tariff regimes may be appropriate. On the contrary, in all other cases, a regulated regime should be implemented. This approach shall be pursued especially in those markets where Storage Obligations are in place (at least until these obligations are removed, which is a proper change in all cases).

Even if the choice of the storage tariff regime still remains a matter of national competence, the Commission should take an active monitoring role in this regard.