

GIE position paper on the Energy Union

Who is GIE?

Gas Infrastructure Europe (GIE) is an association representing the sole interest of the infrastructure industry in the natural gas business such as Transmission System Operators, Storage System Operators and LNG Terminal Operators. GIE has currently 68 members in 25 European countries.

One of the objectives of GIE is to voice the views of its members vis-à-vis the European Commission, the regulators and other stakeholders. Its mission is to actively contribute to the construction of a single, sustainable and competitive gas market in Europe underpinned by a stable and predictable regulatory framework as well as by a sound investment climate.

General comments

The European energy market faces enormous challenges in the short and medium term. Therefore GIE welcomes the efforts by the European Commission to work on creating an Energy Union which should be instrumental to achieving the energy and climate policy objectives.

The prerequisite to achieve security of supply goes via the achievement of a well-functioning internal energy market. Gas infrastructure (“the hardware”) is therefore a requisite to achieve this target.

The full implementation of the existing EU rules, together with the upcoming network codes (“the software”) will increase trading and liquidity within the EU. A truly internal market will also increase the attractiveness for gas producers both from outside and inside the EU.

Efficient cooperation among gas infrastructure operators is already taking place and will be reinforced with the implementation of the network codes. Gas TSOs will intensify their relationships with the electricity operators to take duly account of the increasing interactions between both sectors. Therefore, GIE considers that any additional top-down arrangements or new tailored regulatory framework are not required in this regard.

Gas infrastructure will be the backbone of the new innovative energy system, allowing European citizens to benefit from a secure, efficient and sustainable energy supply. Gas is the ideal partner for the integration of renewable energy sources in the energy system, thanks to its flexibility and low-carbon emissions.

Energy security, solidary and trust

GIE is of the opinion that the development of an integrated **gas infrastructure** allowing for enhanced diversification of supplies and flexible transmission capacity of gas across the Member States is the best measure to **ensure the security of supply**, both under normal and emergency conditions. Such diversified and interconnected system contributes to ensuring the security of supply via market-based measures by accommodating to different gas market conditions which exist in the Member States. GIE acknowledges that those infrastructure investments which are not based on market demand (e.g. security of supply) might need financial support to ensure implementation. However, these investments should not be detrimental to existing infrastructure or market based projects.

Gas infrastructure plays an important role in maintaining a high level of security of supply. To this end GIE members have invested in new **interconnections, underground gas storages and LNG import terminals**.

GIE welcomes actions currently taken by the European Commission and relevant authorities in the Member States with regards to **TEN-E and CEF Regulations**. Timely implementation of both legal acts is of primary importance, as they can greatly contribute towards streamlining administrative and regulatory procedures and incentivising gas infrastructure projects. This, as a result, can lead towards accelerated construction of -key gas infrastructure projects which are relevant for security of supply purposes and which have the highest potential for the EU gas market.

With a future forecast of decreasing EU domestic conventional gas production, GIE supports actions aimed at attracting current and prospective gas suppliers towards the EU gas market. This can be achieved by further developing **strategic energy partnerships with key producing countries** which are currently supplying gas to the EU or may do so in the future. As indicated by the Commission, a strategic dialogue should be intensified with Norway and producing countries from the Southern Gas Corridor, North Africa and Eastern Mediterranean areas. However, special attention should also be given to other vital countries such as, USA and Canada and other relevant LNG producers, to make full use of significant supply potential in these countries. All of these actions should contribute towards utilizing abundant gas resources which are available worldwide, diversifying the supply mix in all parts of the EU and, as a consequence, ensuring that secure and competitive supplies are available to the customers in the EU.

GIE and its members already contribute to this process. GIE has set up a forum for dialogue at the European level between its members and the current key EU external suppliers, including Norway, Algeria, Azerbaijan and Russia.

GIE agrees that **Inter-Governmental Agreements (IGAs)** should be fully in line with currently applicable EU legislation. In this respect the information sharing between Member States and the Commission could have an added value by guaranteeing the application of the EU law.

Natural gas produced domestically has been constantly playing a key role in ensuring the security of supply in the EU. In the coming years, the steady decline of this production will require infrastructure operators to adjust their systems for alternative supply routes and transportation concepts. In addition, favourable conditions should be maintained or put in place for production of all sources of domestic gas, being it conventional, unconventional or renewable gas (by means of Power-to-Gas technology, biogas, etc.), provided that the EU environmental standards are fully met.

With ever increasing **interactions between the gas and electricity** sector, the establishment of rules on security of electricity supply should be done with full consideration of its potential impact on the gas market and vice versa. Hence, both regulations (gas and electricity) should be developed in a coordinated manner to ensure coherent approaches, while guaranteeing the security of energy supply and preventing cross-subsidies at the same time.

In this respect, special attention should be paid to possible regulatory barriers hampering the interaction between the electricity and gas markets before introducing new regulatory measures. It should however not be forgotten that both markets also have their own dynamic and specific requirements. For example, whereas the gas market will have an important role to play in power generation, it is also used in other demand areas such as heating. Solutions should therefore not be to the detriment of other sectors or prioritise one sector over the other.

The EU should also act to support the **Energy Community** countries in their efforts aimed at reforming energy markets and implementing European *acquis*. This process will ensure that aligned

rules covering the functioning of energy markets are put in place in the direct neighbourhood of the EU.

Integrating markets

GIE and its member companies have been investing in the development of gas infrastructure over the last decades in order to achieve a single integrated market. The gas markets today already benefits from substantial cross-border capacity in many parts of Europe and gas markets have enabled gas to be transported throughout Europe for many decades. Market-based investments in gas infrastructure have resulted in a robust system which can transport large amounts of energy. In that sense Europe already has an **“Energy Highway”: the gas infrastructure**.

However, despite these major achievements, **further actions need to be taken to ensure that an integrated gas system is put in place** and, consequently, all EU Member States can benefit from the advantages offered by an internal gas market. According to the ACER Annual Monitoring Report 2014, on an EU aggregated basis, the total potential annual gas wholesale gross welfare losses due to the current lack of market integration amounted to 7 billion euros in 2013¹. But GIE is of the opinion that a market based approach should be the cornerstone of any additional investments and be based on long-term commitments from the infrastructure users and/or regulators.

GIE supports the **development of gas hubs, as an essential element for developing liquid gas markets**. The analysis of the EU gas hubs prices evolution show a good level of market integration and price convergence along a spine of hubs from north-west to south Europe. Through sufficient interconnections and diversification of supply sources **price convergence can be expanded towards other parts of Europe**. Energy policy and regulation should enable optimal use of the existing infrastructures, as well as to provide appropriate incentives for its maintenance and further development, especially also in regions requiring higher diversification of supplies and enhanced market integration.

Regarding **cooperation between European TSOs**, GIE has always supported efforts to ensure efficient and secure flow of gas. This long and successful TSO cooperation will be even further improved with the implementation of the network codes. Therefore GIE sees **no need to implement regional operational centres in gas**. **Current collaboration** agreements between TSOs, also under the umbrella of ENTSOG, **have proven an efficient means to face current and upcoming energy challenges** resulting from the transformation of the energy system. Priority must be given to the completion of the internal market.

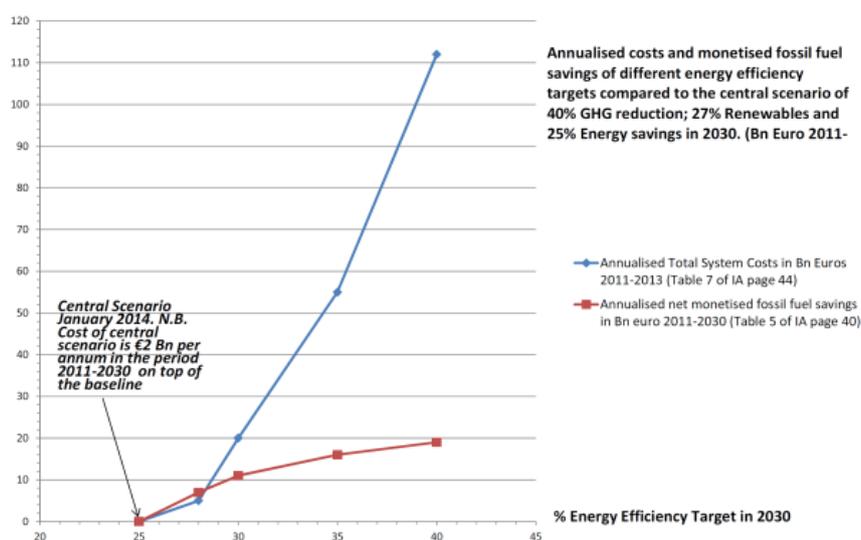
Further **progress in market integration** is also expected as a result of the (early) **implementation of network codes and the TEN-E regulation**. The European Commission should therefore be prudent in proposing any further action on top of the existing legislation. This is especially imperative on the short term. The current framework is still being implemented and improvements are still underway and they will show expected benefits in the near future. If an analysis of the state of play of the market does not take into account the changes which are going to be implemented as a result of existing EU rules in force, it would risk increasing the regulatory burden without substantially improving market conditions.

¹ ACER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2013 (page 177, [link](#))

In order to achieve timely investments the Commission should ensure a stable and predictable regulatory framework, providing fair remuneration of assets. The regulatory framework should enable and incentivise long-term commitments, from users and/or regulators.

Energy efficiency as a contribution to the moderation of energy demand

GIE supports efforts to moderate energy demand. However, when performing investments on energy efficiency the aspiration should be that the **benefits should always exceed the costs** (ref. graph below). This criterion would allow the energy system to improve its energy efficiency in the most cost-efficient way.



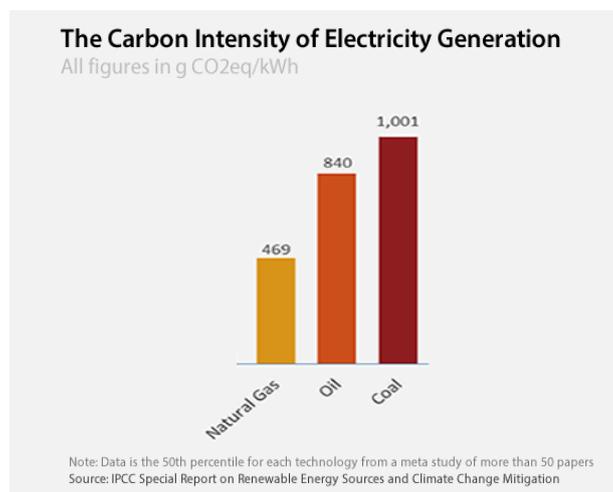
Source: the Communication from the Commission on the Energy Efficiency – COM (2014) 520 final

Natural gas offers great opportunities for energy efficiency gains compared to other alternatives in sectors such as the power generation, transport and heating. The gas industry for instance, has been instrumental in realising breakthrough technologies in the heating sector with high-performance gas appliances such as **condensing boilers**. Promoting the use of these boilers will contribute to further substantial efficiency gains in heating.

GIE members are also conscious of their own carbon foot print and have continuous programs in place to increase their energy efficiency and further reduce their emissions.

Decarbonisation of the economy

GIE would like to underline the crucial role that gas and gas infrastructure will play in the future. By **substituting coal and oil fired power plants with gas fired power plants**, a quick reduction of greenhouse gas emissions can be achieved against low capital expenditure. Further reductions can be achieved through the application of CCS. Pilot project are however required to demonstrate that this technology can be used at an industrial scale. Further efforts are also needed to address the current limited public acceptance, without which CCS development will not be possible. Regulatory frameworks should encourage the use of CO₂ generated in fossil power production for Power-to-Gas processes, i.e. for production of synthetic methane from hydrogen.



Gas and gas infrastructure are vital for securing energy supply to European customers, not only for direct gas consumption such as efficiently heating homes, but also for electricity production. Furthermore, gas infrastructure is key to **enable innovative low-carbon technologies such as Power-to-Gas and biogas**. Additionally, GIE welcomes efforts to ensure the wide use of **natural gas as a fuel in the maritime and road transport sector**. Such technologies can substantially contribute to the EU's energy and climate goals.

When taking decisions about the mobility of the future, it should not be forgotten that **gas for transportation offers great opportunities** for decarbonising the transport sector in the most economical way. Switching to natural gas will deliver not just CO₂ emissions reductions but also significant air quality benefits for citizens, with lower NO_x emissions, lower SO_x and few particulates. Adding renewable sources of gas (e.g. biomethane) to natural gas can even increase the environmental attractiveness of this option.

The EU directive for the deployment of alternative fuel infrastructure is paving the way to further increase the penetration of LNG and CNG in the transportation sector (especially maritime and heavy-duty vehicle). The number of vehicles running on natural gas (exceeding already one million in the EU) and the number of current refuelling CNG/LNG stations in place are just a sign that, with the right incentives, this market can develop much more and replace the more polluting and more carbon-intensive oil-based fuels in a cost-efficient way.

Gas infrastructure offers also an immense potential for energy storage. Through the Power-to-Gas technology, surplus electricity can be converted into hydrogen or synthetic methane and be stored and/or transported efficiently by the gas system. This would bring further stability to the EU energy system. The gas infrastructure system has therefore the potential to become **the "battery of the future EU energy system"**, a battery which is already there, is invisible and does not require huge investment costs. However, the Power-to-Gas technology and in particular development of competitive business concepts still need support to overcome the critical transition period from pilot projects to industrial uses to become commercially viable in the long run. This is a major step forward towards fully exploiting the infrastructure's potential to **transport energy in an efficient manner**, up to 20 times compared to **power lines**.

An Energy Union for Research and Innovation

GIE welcomes the EU efforts on Research and Innovation. This constitutes an essential element in the transformation of our energy system. GIE believes that the gas infrastructure will be the

backbone of the new innovative energy system, allowing European citizens to benefit from a secure, efficient and sustainable energy supply.

Through **EU instruments** such as Horizon 2020, the EU has put in place measures to **support research and innovation**. To ensure an efficient transition to a low carbon energy system, support should be **technology neutral** and be open for all technologies contributing to reducing emissions on the most **cost-efficient way**. In this respect the potential of the existing gas infrastructure should be fully taken into account as it can be a pillar of the future energy system.

Regarding support measures for renewable energy, these should fully recognize the role that **renewable gas** can play in the energy transition. Innovation requires a certain amount of flexibility, therefore special attention should be given to the regulatory framework applicable for smart grids in gas, for new technologies such as Power-to-Gas, and for the further development of biomethane, without introducing undue new regulation.

Innovation must not only be applied to the production, transportation or storage of energy, but also to the way the current energy infrastructure is operated and protected against any potential risk and/or attacks. GIE recognizes that nowadays major threats regarding security arise from cyber-crime and increased joint efforts for protection need to be taken. In this regard, GIE welcomes any EU initiative to reinforce a common **European Cyber Security Strategy**. GIE members have taken all relevant measures to improve cyber security by assessing the risks, and implementing management systems and technical solutions. New EU security requirements should be economically sustainable, and the costs that arise from implementing such measures should be recognised in the tariffs.

Energy Union Governance

The Energy Union, and more precisely the Energy Climate and Framework 2030, will bring a new governance system which will aim to make sure that the EU achieves its energy and climate targets. Greater coordination between Member States on energy and climate policy is needed to **prevent a fragmentation within the EU**. GIE is of the opinion that whatever Governance System is finally put in place, it should be ensured that this system works in an efficient manner, it should be ensured that this system works in an efficient manner towards the objectives of competitiveness, security of supply and sustainability. **Otherwise** the EU credibility will be at stake, and the market will perceive **increased regulatory risks and uncertainty**, which will be **detrimental for all market stakeholders**.