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GIE response to DG Energy's public consultation on: Stock taking document Towards a new Energy Strategy for Europe 2011-2020

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GIE welcomes the opportunity to provide its views on the *Stock taking document – Towards a new Energy Strategy for Europe 2011-2020*.

Introduction

With the ratification of the Lisbon Treaty and the agreements on the Third Energy Package and the Climate Package, a new energy panorama is arising in the EU. The well-known “20/20/20” target imposes binding obligations on the Member States. Furthermore, the Commission came forward recently with an analysis to increase the 20% reduction of green house gasses in 2020 up to 30%. Work is also being prepared for the so-called “decarbonisation of Energy Roadmap to 2050”.

Under this new low-carbon economy framework, natural gas and, more specifically, gas infrastructure, will play a new and increasingly important role.

Additional gas infrastructure (transmission, storage and LNG) is and will continue to be necessary in the future as it constitutes a key element in the development and well-functioning of the European internal gas market and as it contributes to increased

- security of supply,
- diversification of gas supplies and
- competition.

Moreover, the development of the European internal gas market will bring along real choice for all consumers, new business opportunities, competitive prices and higher standards for services.

Role of natural gas in the future

GIE agrees with the Commission that making progress towards a low-carbon energy system will require the use of various instruments. It is therefore crucial to better recognise the role natural gas and gas infrastructure can play in contributing to the EU's long term objectives.



Gas Infrastructure Europe - is the European association of the natural gas infrastructure industry and represents the operators in 26 countries. GIE is structured by three columns: GTE - Gas Transmission Europe, GSE - Gas Storage Europe - and GLE - Gas LNG Europe.

Gas will be abundant for the next decades. The IEA estimates that, in 2030, 35% of European gas demand can be covered from European production; the potential for European indigenous unconventional gas may further decrease import dependence.

The development of large unconventional gas reserves in the USA has rendered this country self-sufficient in terms of gas demand for - at least - the coming decade. As a direct result of this, more LNG from various sources is available for Europe. More LNG receiving terminals, together with a better interconnected gas network, will contribute to enhance the security of supply levels whilst ensuring competition in gas supply and therefore keener prices for European end consumers.

It has also to be pointed out that the outcomes from research in new energy technology developments concerning gas will make a major contribution to achieve low-carbon targets. In this sense, new technologies, such as the regenerative production of gas ("power to gas") and the compressed air storage energy (CAES), among others, will assist define gas as an essential component in the future low-carbon economy framework by using existing and new gas infrastructure and the available technology developments.

The Commission stresses the urgent need to replace the aging power generation capacity. Natural gas is the fossil fuel with least emissions, so replacing old coal fired power plants by gas fired plants will result in significant emission reductions. Gas fired power plants have the shortest development times, and the lowest capital cost. A gas fired power plant emits 60-70% less CO₂ than an old coal fired power plant, and about 50% less than a modern coal fired power plant. Furthermore beyond the timescales of the consultation document, emissions can even be further reduced by retrofitting CO₂ capture and storage (CCS) on a gas fired power plant to further progress towards a decarbonised environment.

Natural gas and renewable energies

Due to the ambitious EU climate goals, many Member States are fostering the development of renewable energy production, preferably wind and solar farms. In this context, power generation has to take into account the intermittency of wind, which tends to blow strongest at night and subside in the day. Theoretically this intermittency could be balanced through solar technology, but sunshine is arguably just as unpredictable, with no technology available at present for large-scale storage of generated electricity.

Wind and solar electricity generation therefore require back-up generation capacity using other fuels. The low carbon and flexible features of gas make it the ideal back-up fuel. Additional Combined Cycle Gas Turbines (CCGTs) will be ideal to fill periods of none or low availability of renewable generation providing much faster response than is achievable with coal, nuclear power plants or other electricity production facilities.

CCGTs are becoming a major outlet for gas consumption but their irregular off-take profiles impose investment requirements in the transmission networks, and also impact network operation and balancing. As CCGTs show large load factor variations, gas infrastructure (transmission, LNG and storage) need to be capable of providing CCGTs with an adequate level of flexibility.

Investments into gas infrastructure will need to accommodate the change in the use of natural gas, particularly, different gas sourcing, routing through the European grid and in respect of demand levels

and patterns of demand. The enhanced gas infrastructure can then provide optimal flexibility to back up the ever changing production patterns from renewable sources. This will continue to require a European gas grid which is designed to deliver peak demand. The necessary investments to support this require a sound and stable regulatory framework.

The future of renewable energy and gas infrastructure is intertwined: even if the share of natural gas in the EU energy mix would decrease, the development of renewable energy will trigger the development of new gas infrastructure. In this context the potential of green gas should also be underlined, making gas not only crucial in the transitional period but also in a low carbon society. Gas infrastructure development does therefore not only enable the integration of renewable energy production but can also contribute to low carbon technologies.

Role of transmission, storage and LNG infrastructure

GIE is committed to working towards completing the internal energy market underpinned by a secure, adequate and efficient gas infrastructure.

Experiences throughout the European Union have shown the detrimental effect the lack of sufficient gas infrastructure has on the commodity price. Therefore the low cost of gas infrastructure for the end consumer must be highlighted. With less than 10 % of the total costs for end consumers it is far more competitive in relation to other forms of energy transport. When it comes to use of space, safety, energy efficiency and environmental impact, gas transmission by pipeline also provides the best solution. Furthermore, special emphasis should be made on the interconnections development. A right level of cross-border interconnection capacity (at regional and at Pan-European level) will contribute to the creation of a true internal market whilst helping to increase both the security of supply and liquidity of the European gas market.

GIE also sees a key role for storage and LNG in the switch to a low-carbon energy system. Even with a limited increase of the total gas demand, we expect that more gas storage and LNG terminals will be needed to facilitate the declining domestic production in Europe, to increase the security of supply and to accommodate the increased need for flexibility.

The declining domestic production will also require more gas storage (due, especially, to the fact that the biggest share of natural gas in Europe will be imported through long distance pipelines) and more LNG import capacity to bring gas from different origins around the world.

We expect that markets will demand increased flexibility due to increased trading, more gas fired power and the increase of wind and solar power. As stated, gas has the advantage that it can be stored either in gas facilities or LNG terminals, and used when needed. Therefore natural gas is best suited to back up – with adequate development of underground gas storages and/or LNG terminals– intermittent energy supply from renewable sources, such as wind and solar.

The new EU energy strategy for 2011-2020 should consequently clearly confirm the important role of natural gas in a low-carbon energy system.

Additionally, GIE would like to point out that the Internal Energy Market (IEM) packages have gradually eliminated the distinction between transit and national transportation. Transmission systems used to be financed by their destination markets. The destination market has decided,

whether investment into a new source (or a new route) is justified by demand, by security of supply or by additional competition. Consequently, the destination market took the full commercial risk via long term ship or pay contracts. The IEM directives tend to shift the risk to the TSOs along the route, and thus to markets without an adequate benefit. This might hinder the development of a pan European grid. A proper risk allocation to allow market based financing should still remain possible.

Role of the investment climate: energy policies and stability

It should be borne in mind that many energy projects, such as gas infrastructure, have long lead times to develop (3-8 years), due among other to long and complex permitting procedures, and once completed need many years to deliver an appropriate return on, and recovery of, the capital investment.

Therefore, a sound and stable investment climate is essential to enable the development of gas infrastructure in a timely and efficient way. National regulatory regimes should also be designed and executed in a manner that is conducive to the challenges ahead and that renders investments economically viable. This will allow for necessary investments to be made in time. Additionally, efforts in reducing permitting and authorization procedures would be necessary and should be also considered in the future gas infrastructure package.

Developing new initiatives and policies, before existing ones have been implemented, leads to uncertainty with regard to future energy and climate policies, and undermines the stability needed to attract timely investments.

From a policy point of view it should be taken into account that new initiatives and policies can lead to uncertainty for businesses undermining timely investments. GIE believes that after a period of frequent policy change (e.g. three EU gas directives in the past decade), the EU now needs to focus on consolidation, implementation and assessing where targeted new legislation would be necessary. This will provide the market with the stability needed for adaptation and investment. Only in this way, there can be sufficient additional investments in gas infrastructure, which – as we have stated above – will be a crucial factor in making progress to a low-carbon energy system, whilst at the same time ensure security of energy supply and reasonable costs and energy prices.

Role of the NRAs: Regional Cooperation and alignment with EU energy strategy.

The Third Energy Package gives significant relevance to the regional cooperation. Member States will foster the integration of their national markets and the cooperation of system operators at Community and regional level, as a step towards the creation of a fully liberalised internal market.

In this sense, GIE is of the opinion that any new energy strategy or EU legislation should support the regional cooperation aimed at the development of interconnection infrastructure. It should also remove the administrative barriers arising from different regulatory frameworks among the EU Member States.

NRAs, together with the Members States, will play a key role in the regional cooperation.

The Third Energy Package has brought about more independence and powers for the NRA. But the policies of these authorities may sometimes interfere with the EU goals. In order to successfully



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implement a European energy strategy, it would be very convenient to ensure that NRAs' actions at national level are properly aligned with the EU energy policy.