Industrial, energy and other aspects of shale gas and oil

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The European Parliament adopted by 492 to 129 with 43 abstentions a resolution on industrial, energy and other aspects of shale gas and oil and recalls that shale gas development can have a significant impact on the natural gas market in terms of dynamics and prices, as well as on power generation.

Potential resources: Parliament notes that various estimates of shale gas resources in Europe have been made and that several Member States have reserves. It considers that policymakers should have at their disposal **more accurate, up-to-date and comprehensive scientific data** to enable them to make informed choices. It agrees with the European Council that Europe's potential for the sustainable extraction and use of shale gas and shale oil resources, without putting the availability and quality of water resources at risk, should be **assessed and mapped** in order to potentially enhance security of supply.

Energy markets: Members point out unconventional gas in the form of tight gas, shale gas and coal bed methane already contributes to more than half of gas production in the US, with shale gas showing the largest increase. The shale gas boom in the US has had a significant positive impact on the natural gas market and on gas and electricity prices. Parliament observes that US spot prices have fallen to a historic low, thus **widening the price gap between the US and a Europe bound by long-term contracts**, and having an impact on the competitiveness of Europe's economies and industry. As the gas market becomes ever more global and interconnected, **the development of shale gas will increase global gas-to-gas competition** and will therefore continue to have a major effect on prices.

Parliament notes, on the other hand, that **significant investments are needed** for the establishment of all the necessary infrastructures related to the drilling and to the storage, transport and reprocessing of gas and fracking fluid, which have to be entirely covered by the industry.

In this context, the Commission is urged to:

- address, at the next meeting of the EU-US Energy Council, the potential impact of worldwide shale gas development on the LNG market and the lifting of possible restrictions to global LNG trade;

- come forward, by the end of 2013, with an analysis of the future of the global and EU gas market, including the impact of the gas infrastructure projects already planned (such as those developed in the context of the Southern Corridor), new LNG terminals, the impact of shale gas on the US gas market (notably on LNG import needs), and the impact of possible shale gas developments in the EU on the future of security of gas supply and prices. Parliament believes that the analysis should reflect, and take as a starting point, the current state of infrastructure development and the EU's 2020 CO2 targets. All relevant stakeholders should be consulted.

Transition to a decarbonised economy: Parliament agrees with the Commission that gas will be significant for the transformation of the energy system, as stated in the Energy Roadmap 2050, since it represents a quick, temporary and cost-efficient way of reducing reliance on other, dirtier fossil fuels before moving to fully sustainable low-carbon power generation, thereby lowering greenhouse gas emissions, particularly in those Member States that currently use large amounts of coal in power generation, should the impact studies conclude that these operations do not adversely affect either the environment, particularly groundwater, or the adjoining local communities.

Given the lack of comprehensive European data on the carbon footprint of shale gas, Parliament calls on the Commission to finalise its full life-cycle analysis of greenhouse gas emissions from shale gas extraction and production, with a view to ensuring that they are correctly accounted for in future.

Parliament also calls on the Commission to:

- analyse the economics of CCS for gas in order to speed up the development and deployment of this technology and examine the likely impact of CCS technology on the flexibility of gas power generation, and therefore on its role as back-up for renewable energy sources;

- in line with the EU Energy Roadmap 2050 strategy, to evaluate the economic and environmental impact of and prospects for unconventional gas in the EU, taking into account what can be learnt from the USA's experience and regulation in this field, whilst recognising that the extent of unconventional gas use in the EU will ultimately be decided by the market and the decisions of the Member States acting within the framework of the EU's long-term climate and energy policy objectives;

- ask the European Environment Agency (EEA) to prepare a full-scale scientific environmental analysis of shale gas and shale oil exploitation and the potential impact of available techniques.

Public authorities are called on to produce an **underground regional impact assessment** in order to optimise resource allocation between geothermal energy, shale gas and other underground resources, and therefore maximise the benefits for society.

Industrial environment: Parliament recalls that the massive increase in US shale gas production has been supported by an established industrial environment, including sufficient numbers of rigs, the necessary manpower and an experienced and well-equipped service industry. It is aware that in the EU it will take time for the necessary service sector to build up adequate capacity and for companies to acquire the necessary equipment and experience, and that this is also likely to contribute to higher costs in the short term. Members encourage cooperation between relevant EU and US companies with a view to applying green completions, Best Available Technologies and environment-friendly industrial processes while reducing costs. They believe that expectations about the pace of shale gas development in the EU should be realistic and that any potential commercial extraction should be gradually phased and paced, in order to avoid boom-and-bust economic cycles with their significant adverse local impacts. Furthermore, a stable regulatory framework is essential both to create the right environment for gas companies to invest in much-needed infrastructure and research and development, and to prevent market distortions. Member States are urged to introduce the **necessary skills** required into their mainstream education and training systems, in order to prepare the necessary skilled labour force.

Parliament also calls for further research and development activity relating to tools and technologies, including CCS, so as to explore the possibility of a more sustainable and safe development of unconventional gas. It recommends that other Member States and the Commission **examine the possibility of extracting shale gas without the use of chemicals**, and calls for further research and development activity relating to such techniques and/or practices that would mitigate potential impacts on the environment. The Commission is urged to put forward recommendations for all shale gas wells in the EU for reducing fugitive methane emissions.

Licensing framework: Parliament calls on the Member States to put in place a **robust regulatory regime** and ensure the necessary administrative and monitoring resources for the sustainable development of all shale gas-related activities, including those required by EU environmental and climate protection legislation. It recalls that in accordance with the subsidiarity principle each Member State has the right to decide for itself on the exploitation of oil and shale gas.

Members express the view that Member States undertaking shale gas projects should adopt a **one-stop-shop approach** to authorisation and licensing and the examination of compliance with environmental regulations. They call on the Commission and the Member States to ensure that the modifications to the legal framework necessary for the licensing of shale gas exploration require the mandatory **approval of the local authorities affected.**

Public opinion and best practice: Members are well aware that public attitudes to shale gas development vary between Member States, and that negative attitudes might be caused by lack of information or misinformation. Therefore, Parliament:

- calls for **improving and better provision of public information** on shale gas operations to be provided in a transparent and objective manner, and supports the creation of portals providing access to a wide range of public information on such operations;

- urges **companies** considering extraction of shale gas in the EU to provide full information on their activities, to consult with local communities and local authorities prior to drilling, and to publicly disclose all chemicals used by them in hydraulic fracturing, including the concentrations used, following the assessment of the shale formation;

- stresses the importance of applying the **highest safety standards**, the **best available technologies** and the best operational practices in shale gas exploration and production, and of continuously improving technologies and practices and minimising adverse effects; stresses, in this respect, the importance of ensuring significant levels of R&D investment on behalf of the industry;

- calls on the EU to follow the US lead in shale gas environmental standards for fracking that require companies to capture methane and other pollutant gas emissions, as introduced by the US Environmental Protection Agency (EPA).

Members believe that concerns over the potential of shale gas development to damage water supplies through leakage from wells can be addressed through the adoption of **best practices in well development and construction**. They call on shale gas operators to test domestic water wells close to their wells both before and during production, and to disclose the resulting information to the public in an accessible, understandable and transparent manner.

Lastly, they recall that the "**polluter pays**" principle must be consistently applied to shale gas and shale oil operations, particularly regarding waste water treatment, and that companies must be fully liable for any direct or indirect damage they might cause.