

SNAPSHOT

Enabling Shale Gas in Europe: Fuelling the Future

22 January 2014

Introduction

22 January 2014 is an important day for Europe's energy, environment and industrial policies.

The European Commission has simultaneously presented its **2030 framework for climate and energy**, its Communication for a **European Industrial Renaissance** and its Communication and Recommendation **providing minimum principles for the exploration and production of shale gas**.

This snapshot focusses on the progress of Europe's shale gas debate and the potential for the fuel to bridge the European Commission's ambitions for energy, climate and industrial renaissance.

Europe's shale gas enabling project so far

In light of the positive impact of shale gas on the US economy, the European Commission's role over recent years has been to assess the potential for the sustainable extraction and use of shale gas in Europe. The European Commission's Communication and Recommendation on shale gas are therefore the culmination of years of studies, public consultation, analysis and decision-making.



The Commission's assessment began with a review by Philippe and Partners in November 2011. This study found the EU's environmental legal framework applied to shale gas development and was adequate for early exploration and exploitation of shale gas. However, further clarification was deemed necessary for the production phase.

To aid its decision-making process, in September 2012, the European Commission released studies on the potential environmental risks of shale gas development, the climate impact and the potential energy market impacts in the European Union. Such studies provide a body of evidence for the European Commission's approach to the Communication and Recommendation. This is evident in its statements that "the greenhouse gas emissions from shale gas production in Europe could be 41% to 49% lower than emissions from coal-based electricity generation" and that shale gas production could encourage "a moderate decrease or avoided increase in gas prices."

In conjunction, the European Parliament put forward its formal position on shale gas in November 2012. Two reports were adopted; one on the environmental impacts of shale gas which called on the European Commission to "take the necessary

action to complement and extend existing EU environmental legislation". The second report, on the industrial aspects of shale gas, found that risks identified could be mitigated with the adoption of best practices and therefore invited the EU Member States to ensure that such practices are followed.

The European Parliament's resolutions underlined that shale gas is an opportunity to be seized rather than a threat to be avoided.

By autumn 2013, and following a pan-European public consultation, the European Commissioner for Environment Janez Potočnik made clear the principles of the European Commission's strategy to enable shale gas. This highlighted the European Commission's commitment to shale gas production and to ensure a clear, flexible framework and highlighting that "public acceptance must be tackled".

Meanwhile, the European Commissioner for Energy Günther Oettinger has consistently highlighted the danger of high energy prices in Europe and the effect this has on Europe's competitiveness compared to the USA, with shale gas as one means to a solution.

The Commission's different priorities for shale gas – to ensure environmental safety, to tackle climate change or to boost industrial competitiveness – are all tangible in the final text of 22 January. The years of work and compromise within the Commission and between the European institutions have resulted in the Recommendation below which respects the Member States' right to decide their energy mix and will not be legally binding on them.

The Recommendation:

Member States are *invited* to implement minimum principles:

- Plan ahead of developments and evaluate possible cumulative effects before granting licences;
- Carefully assess environmental impacts and risks;
- Ensure that the integrity of the well is up to best practice standards;
- Perform baseline monitoring as reference point for future monitoring;
- Control air emissions by capturing fugitive gases;
- Inform the public about chemicals used in individual wells;
- Ensure that operators apply best practices throughout the project.

Next steps:

- While it is not legally binding, Member States are *invited* to implement the Recommendation **within 6 months of publication** in the Official Journal of the EU. The Commission will then produce a **scoreboard** to compare Member State implementation of the minimum principles.
- The Commission will review implementation **18 months** following publication in the Official Journal of the EU. **At this point, legislation may be proposed if deemed necessary.**
- Furthermore, **the Commission will facilitate information exchange** through the Technical Working Group of Member States.

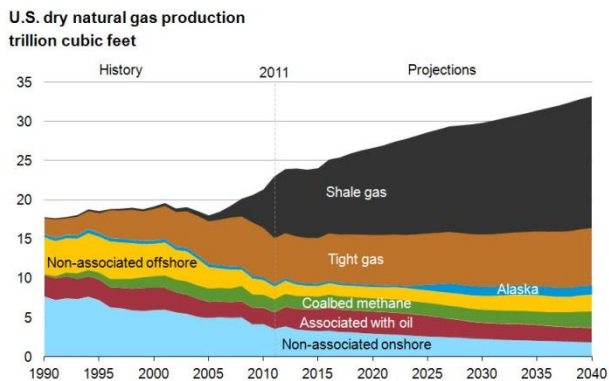
The industry response

The nascent European shale gas industry will appreciate that the European Commission has recognised that a body of binding legislation already applies to shale gas operations. In addition, the economic benefits of the shale gas industry are clearly outlined. Furthermore, the Commission has noted how risks are managed through pre-existing good practices employed by the industry and this is a positive sign. These practices were formalised by the International Energy Agency (IEA) in their “Golden Rules for a Golden Age of Gas” document. Such guidelines should go some way to alleviate the public perception that there is an “insufficient level of precaution, transparency and consultation applied to shale gas activities.”

However, the industry will still maintain that the implementation of the Recommendation on shale gas must take into account the operational realities of fostering the industry and adapting to local geologies and to regulatory environments. One thing is therefore certain; following the adoption of the Commission’s Recommendation, industry must continue to work together and collaborate with governments to build the public’s trust and support for an effective, transparent regulatory and enforcement process. While the exact implementation of the Recommendation in Member States is still unsure, there are areas, such as chemical disclosure, where practical application will need to be refined. To this end, industry in Europe has proactively set up a fracturing fluid transparency service, NGS Facts, which *already* discloses chemical additives on a well-by-well basis. Similar initiatives should continue in future.

The “shale revolution” – why the fuss?

Europe’s interest in shale gas – through the energy, climate and industrial benefits – is evident from the US experience. The U.S. Energy Information Administration calculated that in 2012 10 trillion cubic feet of shale gas was produced in the US and this is projected to grow in coming decades.



First, the transformation of exploiting oil and gas from shale rock saw the US become the world’s leading oil and gas producer in 2013; producing 25 million barrels per day and reducing the price of gas. This was reflected in President Obama’s State of the Union Speech, in which he stated that “after years of talking about it, we’re finally poised to control our own energy future”.

Second, The Economist reported in 2012 that the US had reduced its carbon dioxide emissions from energy generation by “450m tonnes, more than in any other country over the past five years”. With the US scheduled to retire further Gigawatts of coal-fired electricity up to 2021, the switch to cleaner burning natural gas is set to continue, and with it the reduction of US carbon dioxide, sulphur oxides and nitrogen oxides emissions.

Third, a 2013 study by economic analysis firm IHS found that the number of total jobs supported by the shale gas industry’s value chain in the US will “reach nearly 3.9 million by 2025”

and the US manufacturing industry is far more competitive than Europe’s.

The US has highlighted how shale gas can enable energy, climate and industrial policies to align towards a common goal and this has not been lost on Europe’s leaders.

Europe on a good heading?

In contrast to the US, the preceding years have been bumpy for Europe’s nascent shale gas industry. However, Europe has clear shale gas potential.

In 2013, the EIA predicted that Europe has a total of 470 trillion cubic feet of unproven, technically recoverable resources; more than resource-rich Russia. The ability to decrease import dependency and renegotiate long-term gas supply contracts would be achieved if this potential resource can be realised.

Furthermore, in 2013, there was increasing use of coal in Europe, due to cheap coal flooding the market. Reducing coal use is key if Europe is serious about improving its climate credentials. Therefore, the European Commission has highlighted the potential to supplant coal use with greater natural gas use - including shale - in its Energy Roadmap 2050. Furthermore, Commissioner Oettinger made clear that there is “no doubt that gas is the perfect addition to renewables.”

Industrial performance has also struggled in Europe due to uncompetitive energy prices. In May 2013 the European Council focussed attention on these concerns and concluded that indigenous resources, such as shale, could provide a solution. The EU’s action on European Industrial Renewal, set out on 22 January, calls for a strong industrial basis to the EU economy and a supply of shale can support this goal.

Therefore, the ability of - and need for - shale gas to provide potential energy, climate and industrial benefits is evident. It is no surprise that at the beginning of 2014 shale gas has become a priority. Poland’s steady-handed Environment Minister Maciej Grabowski is charged with setting Poland’s shale gas industry on track. Similarly, the UK Government is implementing policies to encourage the sustainable development of shale gas. This includes an array of studies, regulatory frameworks and community benefits put in place where the UK could become the leading EU Member State on shale gas development.

The European Commission’s Recommendation should therefore fill an important space – providing the basis for public trust in shale gas whilst not impeding national governments forging ahead. However, public opinion is still a major issue for the future of shale gas development, as “anti-fracking” groups protest and are vocal in the media.

For shale gas to succeed the public must also give their backing to the substantial energy, climate and industrial benefits on offer. The first 18 months of Member State implementation of the Recommendation will be the all-important next chapter as industry, Member States and the European Commission enable the production of shale gas and tackle the issue of public acceptance.



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