## What Are The Impediments To The Development Of The Shale Gas Industry In Europe And How Can These Be Overcome?

Written by James Green, Partner, EMEA Oil & Gas Group, K&L Gates LLP

The International Energy Agency (IEA) currently estimates unconventional-gas reserves in Europe – including tight gas, shale gas and coalbed methane – to be around 3500 trillion cubic feet. This would be sufficient to supply European gas demand for more than 60 years. However, there are some significant hurdles to be overcome if shale gas is to have as profound an effect on the energy market in Europe as it has had in the US.

The industry faces several practical challenges. Drilling costs are higher in Europe. European shale gas deposits are generally deeper underground and harder to extract. The oil services industry is less developed than in the US, with a shortage of rigs and qualified personnel. Europe does not have the existing pipeline infrastructure that the US does. All of these factors will have gradually less impact as the industry develops, the understanding of the region's geography improves, advances in technology reduce costs and infrastructure is put in place. Higher European gas prices - around twice those in the US - will also help overcome many of these challenges.

In addition, whilst in the US subsoil rights are generally in private ownership (and often held by the owner of the surface land), in most European countries subsoil rights are usually owned by the State, which is entitled to receive royalties in respect of gas that is generated. Local landowners in the US are therefore more likely to support shale gas operations, for financial reasons, than in Europe where there is not such an incentive. Conversely, the exploitation of shale gas reserves in Europe is likely to be a more politicized issue. These impediments may be offset, 'though, by the higher gas prices in Europe.

Environmental issues are also a key concern. France has banned hydraulic fracturing -"fracking" - the process by which gas is extracted, based on concerns over the contamination of water sources. There are also concerns that fracking can cause minor earthquakes. In the UK, fracking in Lancashire was shown to have resulted in tremors, as a result of which test drilling was suspended. The industry will need to be carefully regulated and operators will have to implement high standards of practice if governments are to persuade the public that these are not causes for concern.

On a wider scale, some climate-change campaigners see shale gas as preferable to other fossil fuels (which produce greater levels of carbon dioxide), whilst others consider that Europe should not be focusing on shale gas at all, but should be moving towards a truly low-carbon energy sector, based on renewable sources of energy.

Governments' policies may also be influenced by certain factors that support the development of the industry in Europe. Energy security is a major political consideration for governments that are now, or are likely to become, increasingly dependent on gas imports from Russia. For them, shale gas offers an opportunity to reduce the extent of reliance on a single external source.

In any event, it will be several years before we see serious shale gas production in Europe. Whether the industry fully realizes its potential, however, will depend upon how the major stakeholders - governments (including the EU), investors, developers, drilling companies and consumers - address these issues.

About the Author: James Green's practice covers a broad range of corporate areas, including fundraising and other transactions on the Official List and AIM (acting for both companies and nominated advisers/ brokers), mergers, acquisitions, joint ventures, group reorganisations and venture capital investments. James has experience in a range of sectors, but has a particular focus on oil and gas, mining and cleantech/ renewable energy.





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