

# The Shale Gas Issue

There is a lot of it...and the US have shown the way

The shale gas temptation

Why not in UK?

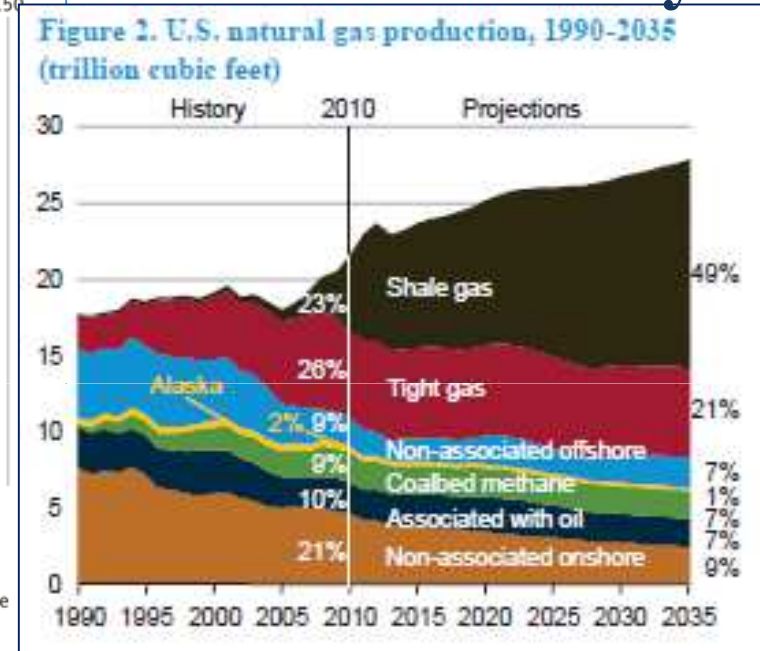
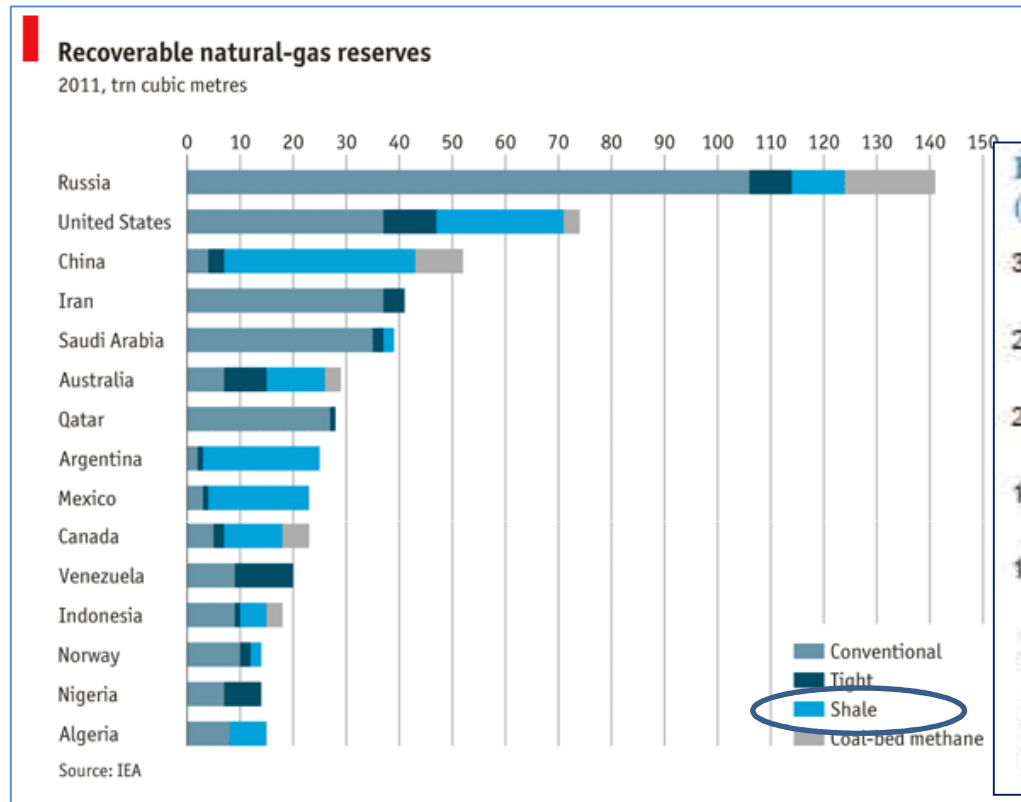
US: the end of a dream?

A glance at few European Countries



# Shale gas: It seems there is a lot of it!

And the US have  
shown the way



From: John Mitchell, Chatham House  
Oil & Gas Modelling conference, RCEM/ CIBS, London  
October 29 2012

U.S. Energy Information Administration /  
Annual Energy Outlook 2012 Early Release  
Overview

**Shale gas development may have a huge geopolitical impact....it is a major threat for Russia**

# The shale gas temptation



## A few good reasons

- **Security:** *a substitute for imports*
- **Competitiveness:** *it would enhance the competitiveness of energy intensive industries and create jobs*
- **Sustainability:** *gas is better than coal*



# The shale gas temptation: first on the list

*China : high demand, strong incentive to invest*

*The potential for abundant unconventional gas reserves has made China a key player in unconventional acquisition activity as it seeks to leverage shale gas expertise honed in North America to develop its own asset base*

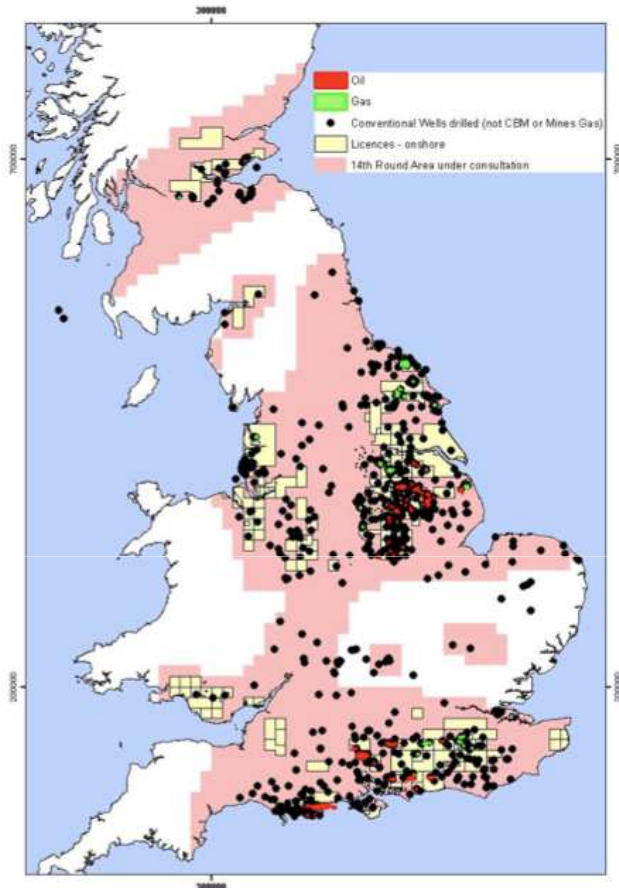
*Deloitte et Touche, March 2011*

**Poland's shale gas** reserves are among the largest in Europe, although the scale of these reserves is still being determined.

Initial research calculated that Poland's reserves range from between 1.4 billion to 5.3 trillion cubic metres of shale gas,

To date 111 shale gas and two tight gas exploration concessions have been granted by the Polish government to companies including PGNiG, Marathon Oil, ExxonMobil and Chevron. The concession areas cover 29% of Poland's territory. During this exploration phase 21 wells have been drilled, including two horizontal

## Why not replicate the US experience in the UK?



*The pink area shows the area that may be offered to companies for exploitation as part of the 14th onshore Oil and Gas Licensing Round*

## But in UK...

- The **geology** is different from the main shale areas of the US
- **Land rights** are not so favourable
- The **population density** is much higher
- One needs to take into account the opposition of powerful and very active **environmental lobby** (Friends of the Earth, Greenpeace)

## AND...

**Shale gas extraction in the UK is likely to cost between \$7.10 and \$12.20/MMBtu, compared with levels as low as \$4.54/MMBtu in the US.**

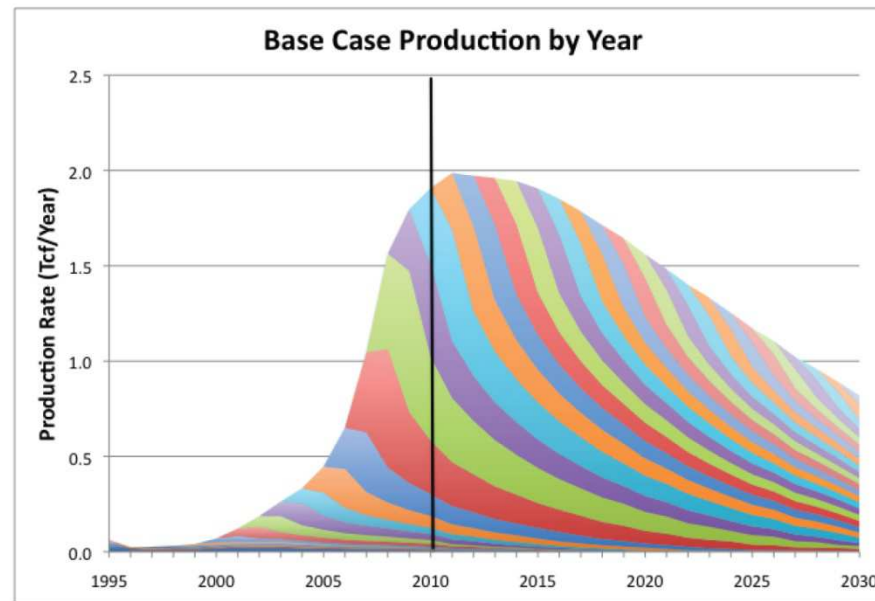
*Bloomberg New Energy Finance (BNEF) Feb. 2013*

# US shale gas: the end of a dream?

Feb. 28, 2013

A new study, believed to be the most thorough assessment yet of the natural gas production potential of the Barnett Shale, foresees slowly declining production through the year 2030 and beyond and total recovery at greater than three times cumulative production to date. **This forecast has broad implications for the future of U.S energy production and policy.**

## Production Outlook for the Barnett Shale through 2030

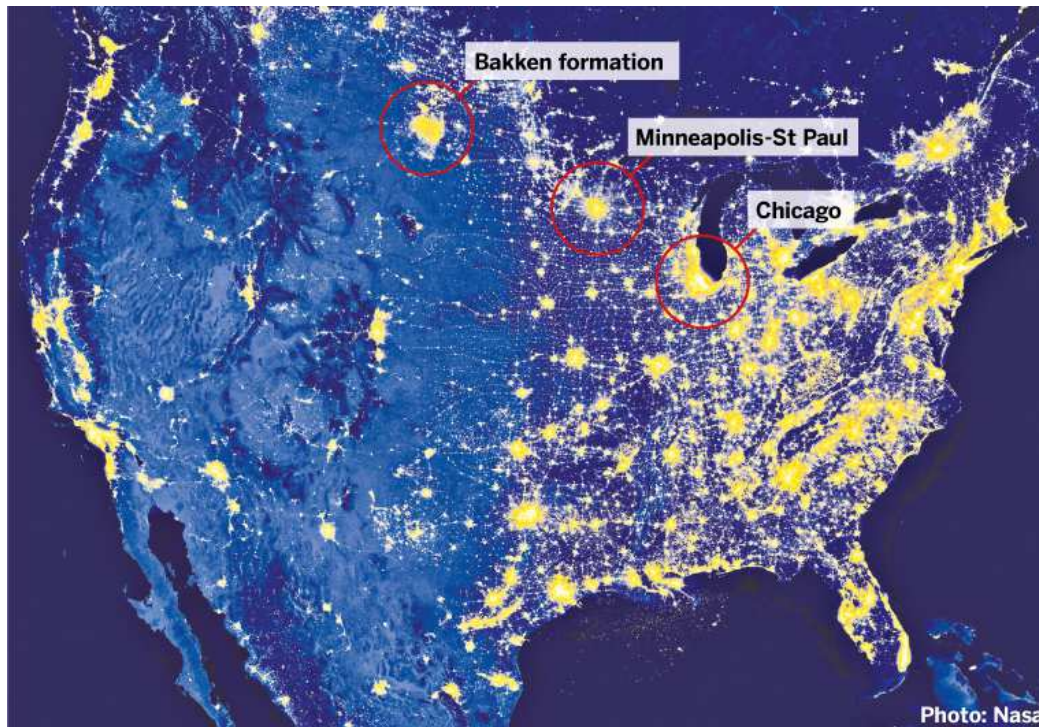


Source: Bureau of Economic Geology/Univ. of Texas at Austin  
QAs1590



# US shale gas: the end of a dream?

(FT, January 27, 2013 )



**“Shale gas boom  
now visible from  
space”**

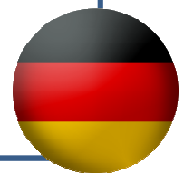
*The rapid increase has made the US one of the world's worst countries for gas flaring...*

*...The flaring is a result, in large part, of the low price of natural gas in North America, which can make it uneconomic to build pipelines and tanks to handle the gas released by oil production*

**Germany** is estimated to have significant resource deposits and **has been at the forefront of shale gas exploration in Europe**. Public concerns and the conclusions of studies on hydraulic fracturing have slowed the pace of development, but Germany's nuclear phase-out will create a strong impetus for onshore gas exploitation.

**German environment minister: 'we want to limit fracking'**

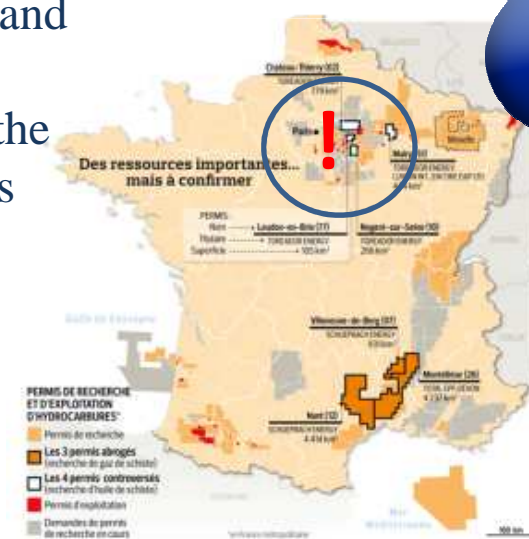
Conservative politician Peter Altmaier says rules for the new drilling technique will likely be tightened in Germany



**France** imposed a moratorium on hydraulic fracturing in 2011 and subsequently revoked several exploration licenses.

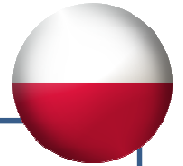
On the 14th of September 2012 president Hollande reaffirmed the **ban on hydraulic fracturing** in France for the remainder of his presidential term

**A report on competitiveness** of the French economy commissioned by the Hollande government provided a surprise result, with the recommendation that unconventional hydrocarbon extraction by hydraulic fracturing be allowed to proceed.





## Poland: YES BUT....



The country's shale plans have suffered setbacks..... after its estimated recoverable reserves were slashed by 90 percent and U.S. oil major ExxonMobil dropped plans to explore for shale in Poland.

Potential investors have also complained about a lack of clarity in Poland where a new shale gas law is still in the works.

*Reuters / Feb 21, 2013*

# AS A CONCLUSION

Enthusiasm is fading away

A dominant attitude:  
let's take an “option”, wait and see