Unconventional Gas. Why now?

Easier to extract

The 'Resource Triangle'

The context for Fracking is Fossil Fuel Depletion

% Energy out

The resources easiest and cheapest to extract are taken first.

Energy is used in extracting energy. As depletion occurs more energy must be used. Thus the amount of "net energy" left over from gross energy falls after this "energy cost" is taken out.

Declining Slower More to extract quality polluting

Harder to extract

Many researchers think that world total energy from fossil fuels and uranium will soon start to fall due to depletion.

Just as coal production has been falling in Britain since world war one and oil and gas production from the North Sea has been falling for over ten years.

Dependence on Fossil Fuels which we can no longer afford....

Your car, your mobile, your computer, lights, cookers and heating, etc... run using coal, gas or oil directly or indirectly (electricity generated burning them). That's why depletion and rising fuel prices is a big deal and a serious crisis for the economic system.

More expensive fuel means companies, households and public services find it difficult to make ends meet. With less money left over after paying

essential fuel bills it's difficult to service their debts too - which threatens the banking and financial system. Above a certain level high energy prices crashes the economy. But there's a catch 22 here – unless energy prices rise high enough it's difficult to make fracking profitable. If interest rates were to rise the fracking companies would not be able to service their own debts.

Caught in this Catch 22 the companies will want to make fracking profitable by cutting corners, doing it fast and dirty at

the **cost of communities** who live nearby. If they were to do it slow and carefully

they would not make money particularly

Type Gas Well Decline Curves for Top 5 Shale Gas Plays Constituting 80% of Shale Gas Production Marcellus Barnett 3 year decline Fayetteville Haynesville = 89% Marcellus = 79% Fayetteville = 80% Woodford = 77% Average 3 year 4000 3000

because fracking wells deplete incredibly rapidly as the graph above shows.

There are no easy answers!

In this energy crisis we need to acknowledge and face our dilemmas - rather than swallow the deceptive stories of the oil and gas industry who have too much power over governments and a stranglehold on policy development.

Produced in unity



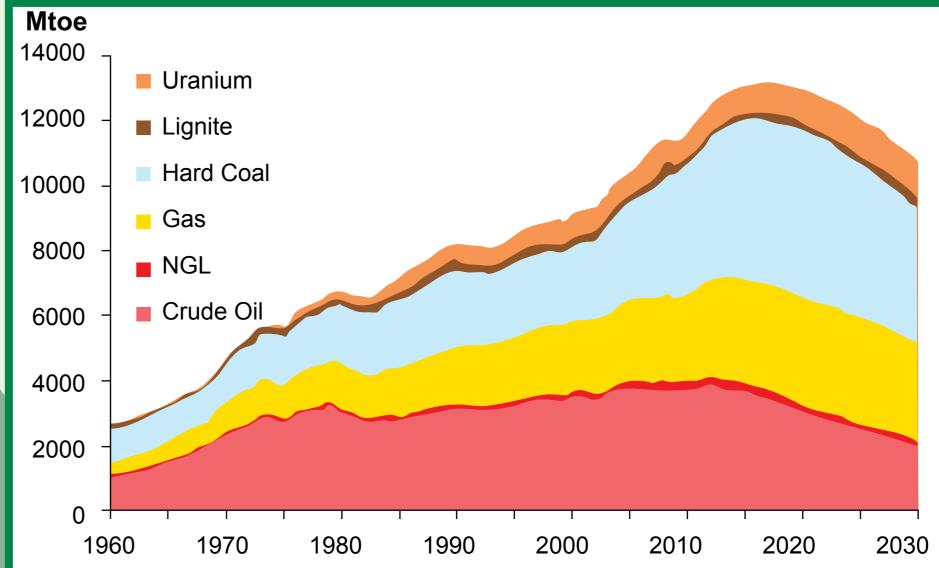
PHACKING



WIND 90 – **HISTORIC OIL AND NEW OIL AND GAS** COAL **DISCOVERIES GAS FIELDS NUCLEAR** 80 -**SOLAR PV** 70 -60 -**BIO FUELS 50** – The Net Energy Cliff TAR SANDS 40 – Fuels to the right require more **Energy available for consumption** energy for production. Beyond **Energy used in production** 30 a ceertain point fuels no longer provide enough energy to 20 support society OIL SHALE **EROI** Energy Return On investment | 10:1 | 40:1 | 30:1 | 20:1 | 1:1 Source: Corporate Watch Study June 2014

EROI needed to

support modern industrial societies?

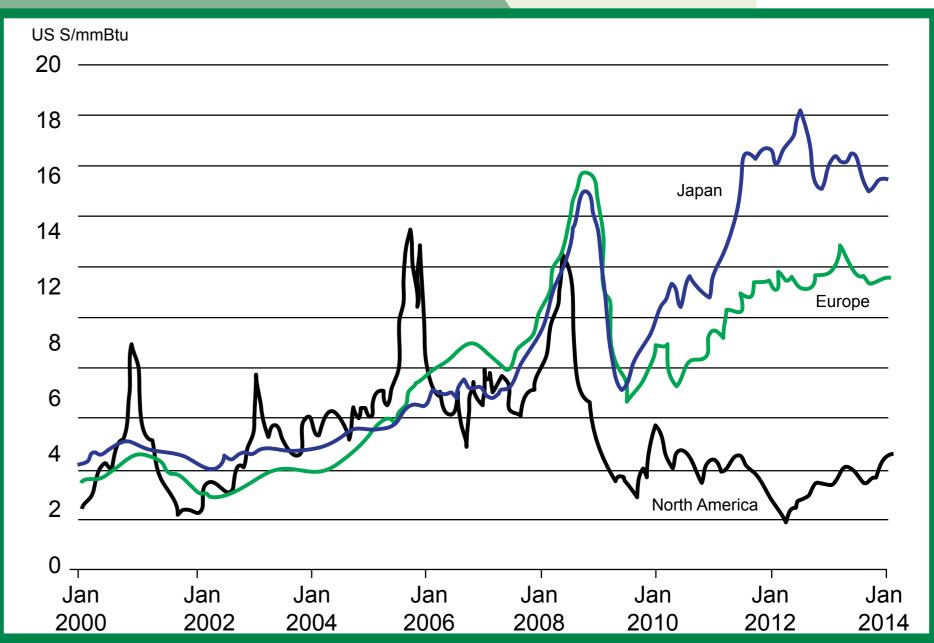


Graph from Energy Watch Group Study 2013. Mtoe = million tonnes of oil equivalent

Environmental, health and climate costs and harms should be counted too

Not just the energy used during drilling, pumping, carrying water and fracturing.

Full accounting of the costs of fracking would include energy used carrying water to places whose water has been contaminated, or looking after people made sick by fracking, replacing contaminated farm land or rectifying when methane leaks or is burned into the local environment.



Graph showing Global Natural Gas Prices



frackfreesouthyorkshire.co.uk