



Shale gas: opportunity or threat to the environment?

In the search for alternative sources of energy, extracting shale gas is becoming more popular but do the benefits outweigh the risks? It involves injecting large quantities of water into rock formations to recover gas trapped one or two kilometres beneath the surface. Supporters say the gas offers a clean and low-carbon fuel that could help reduce the EU's dependence on Russian energy supplies. However, critics say it puts the environment at risk, for example by contaminating groundwater.

What the European Parliament is doing

As more drilling for shale gas takes place in Europe, people have become more concerned about its possible effects. After the European Commission ruled out creating EU legislation on it last year, the Parliament decided to launch its own investigation. The EP's industry committee and environmental committee are both producing their own report on the situation. This week the environment committee invited experts to evaluate the risks shale gas extraction poses to the environment.

The risks of drilling

In the US, where they have 40 years of experience with drilling for shale gas, several accidents have taken place. This led to drinking water becoming saltier near gas wells and groundwater getting contaminated by methane, in extreme cases leading to houses exploding.

John Broderick, of the University of Manchester, told the environment committee that high levels of emissions in the short term should be balanced against the reduction of emissions in the long term.

Robert B. Jackson, of Duke University, said careful planning was needed to deal with the waste water as it is often saltier than seawater and contains chemicals that can be harmful to the environment.

Pauline Jaramillo, research professor in the department of engineering and public policy at Carnegie Mellon University, said that the technique to drill the gas to the surface - also known as fracking - could lead to CO₂ and methane being released.

Mark Johnston, of WWF, said that the nature conservation organisation was against shale gas drilling due to how it could affect climate change.

The situation in Europe

Most of the test drilling for shale gas takes place in Poland due to its abundance of water and low risk of earthquakes. Tomasz Maj, who represents oil and gas exploration and production company Talisman Energy Polska, talked in the workshop about the situation in Poland. He said that gas leaking into drinking water was a valid concern as careless drilling could lead to gas leakage. However, he also stressed that in Poland 85% of the flow-back water is recycled and that information on the composition of the injected water is publicly available.

Article

Drilling activities have also started in Austria, France, Germany and the Netherlands, Sweden and the UK, however there has been much public opposition against these projects. In France this has led the National Assembly to ban hydraulic fracturing and set a moratorium for such drilling activities. In Germany, the regional parliament of North Rhine-Westphalia also pledged a moratorium until more information would be available.