

# Scientific review of shale gas launched

The government has today (Tuesday 5 April 2022) commissioned the British Geological Survey to advise on the latest scientific evidence around shale gas extraction.

Ministers have always been clear that the exploration of shale gas reserves in England could only proceed if the science shows that it is safe, sustainable and of minimal disturbance to those living and working nearby.

In November 2019, ministers announced a pause on activity in England after a report by the North Sea Transition Authority found it was not possible to accurately predict the probability or magnitude of earthquakes linked to hydraulic fracturing operations.

At the time, ministers confirmed the pause would remain in place unless and until further evidence is provided that shale gas extraction can be carried out safely. Any exploration or development of shale gas would need to meet rigorous safety and environmental protections both above ground and sub-surface.

While shale gas extraction is not the solution to near-term price issues, it is right that all possible energy generation and production methods are kept on the table following the unprovoked invasion of Ukraine by President Putin's regime.

Today's request has been made to assess if any progress has been made in the scientific understanding which underpins government policy, and to allow ministers to consider next steps. A report is expected before the end of June 2022.

Business and Energy Secretary Kwasi Kwarteng said:

We have always been, and always will be, guided by the science on shale gas.

It remains the case that fracking in England would take years of exploration and development before commercial quantities of gas could be produced for the market, and would certainly have no effect on prices in the near term.

However, there will continue to be an ongoing demand for oil and gas over the coming decades as we transition to cheap renewable energy and new nuclear power. In light of Putin's criminal invasion of Ukraine, it is absolutely right that we explore all possible domestic energy sources.

However, unless the latest scientific evidence demonstrates that

shale gas extraction is safe, sustainable and of minimal disturbance to those living and working nearby, the pause in England will remain in place.

The British Geological Survey has been asked to investigate:

- whether there have been new developments in the science of hydraulic fracturing – in particular, whether there are new techniques in use which could reduce the risk and magnitude of seismic events
- if there are new techniques, whether scientists are confident that they would be suitable for use in fracturing in the UK, with its specific geology and high population density
- given any new developments in these technologies, how the seismicity caused by fracturing compares to other forms of underground energy production, such as geothermal, coal mining, or surface activities such as construction, and the evidence on the different ‘safe’ thresholds for activity, whether they remain the correct ones, and whether differences between them remain justified
- how the modelling of geologies such as shale has improved in the period since the pause of fracturing was implemented in 2019 and whether that means ministers could be completely confident about the modelling of seismic events and their predictability
- whether there are other sites, outside of Lancashire, which might be at a lower risk of seismic activity and what level of confidence government would have in the assessment of seismic activity in these areas

In commissioning this work, the government is clear that this should be a desk-based exercise by the British Geological Survey, and so no drilling of any further test wells or seismic monitoring will take place.

- The British Geological Survey (BGS) advises the UK government on all aspects of geoscience, as well as providing impartial advice on geological matters to the public, academics and industry. BGS is a component body of UK Research and Innovation
- the Business and Energy Secretary Kwasi Kwarteng [has written to the British Geological Survey](#) setting out the terms of reference for their work. A report is expected before the end of June 2022
- in November 2019 ministers [announced a pause on hydraulic fracturing](#)