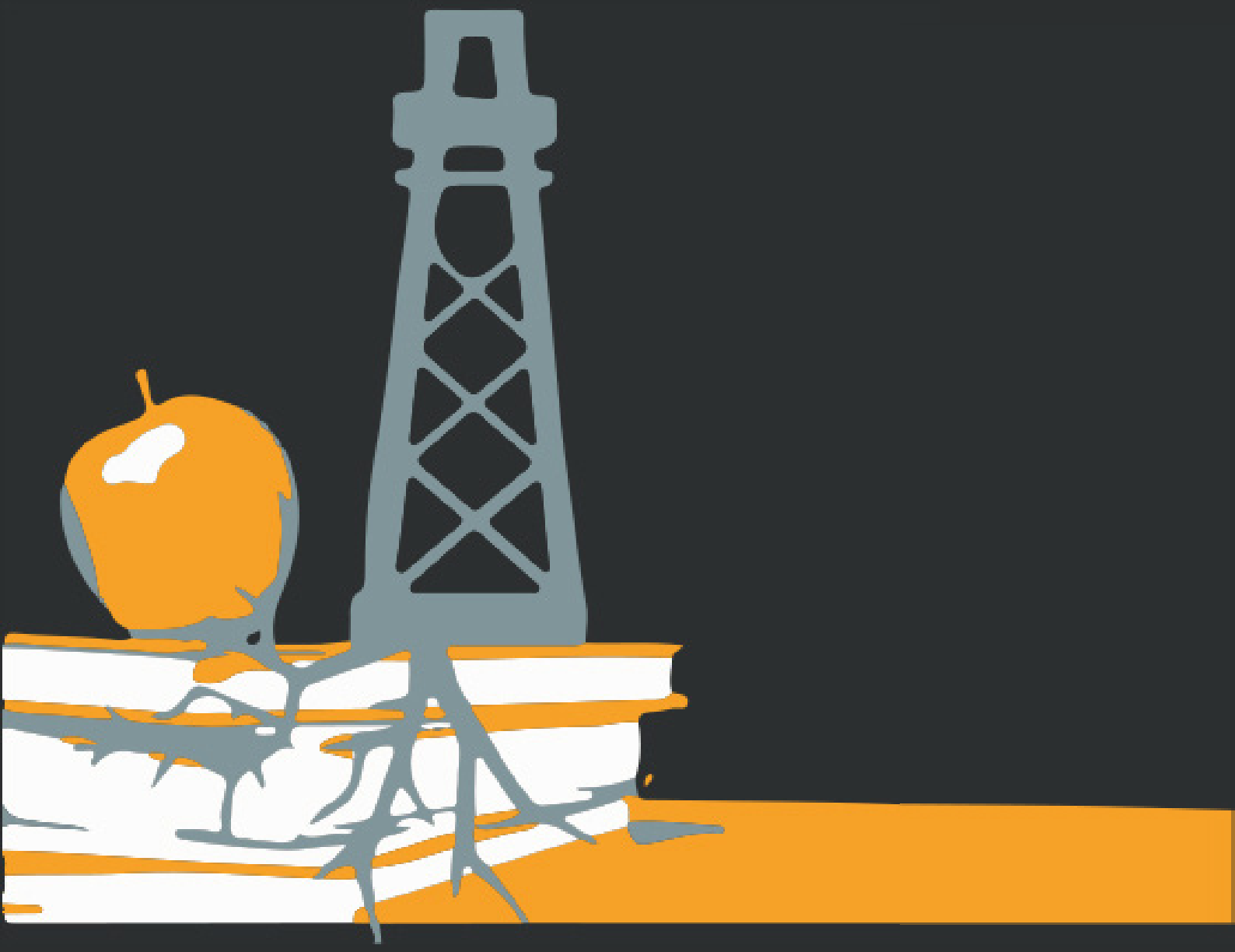
FOSSIL FREE

FRACKING WITH EDUCATION

PUBLIC MONEY, RESEARCH & FRACKING



people & planet

student action on world poverty and the environment

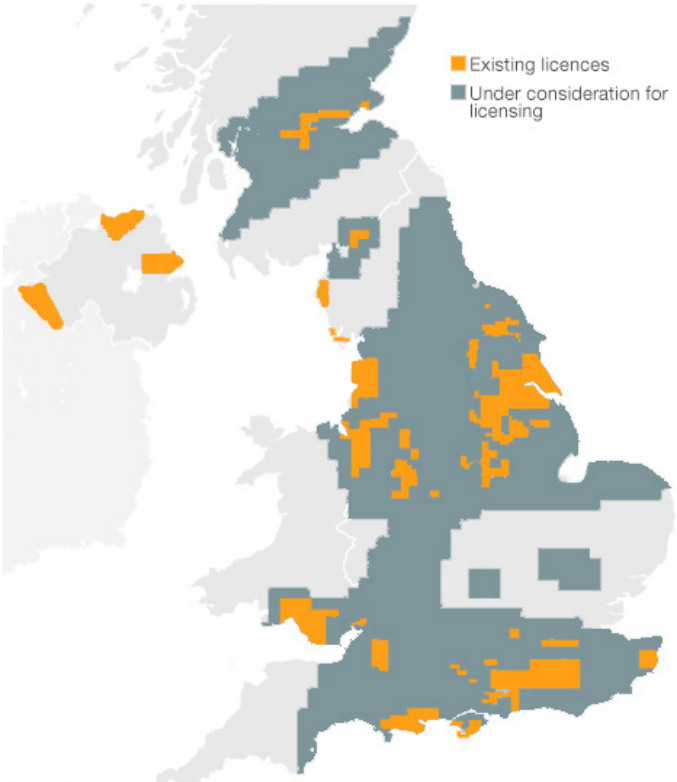
INTRODUCTION

Hydraulic fracturing, or "fracking", is the process of drilling and injecting fluid into the ground at a high pressure in order to fracture shale rocks to release natural gas inside. Reserves of shale gas have been identified across large swathes of the UK, although drilling for shale gas currently remains only at the exploratory phase. In North America, however, the rapid development of shale gas resources has led not only to a glut in the world gas market, but has also had severely adverse effects on local communites and environments.

Scientists have calculated we can burn no more than 565 gigatons of carbon to limit global warming to 2°C over pre-industrial temperatures. The fossil fuel industry currently holds reserves of at least 2795 gigatons – more than enough to burn past this "carbon budget". In a recent study, researchers from the University College London confirmed that an estimated 35% of oil, 52% of natural gas, and 88% of coal reserves worldwide must remain unburned and in the ground. It is therefore imperative that we limit the development of new forms of energy extraction, such as fracking, if we are to avoid the catastrophic effects of global warming.

Students from across the UK have been calling for their universities and colleges to break their ties with the fossil fuel industry. UK universities and colleges support the fossil fuel industry directly through their research, lending credibility and access to the UK's leading research scientists and facilities.

With a total of just under £4 million of public money spent on research into shale gas, universities are gearing up to support fracking both in the UK and overseas. 14 universities and 4 other public sector bodies received grantsbetween 2008–2015, with the biggest grants awarded to Durham University, Manchester University, British Geological Survey, Oxford University and Edinburgh University.



*Shale data for Northern Ireland not shown
**giving exclusive rights to exploration and drilling Source: DECC, British Geological Survey

FRACKING COLLEGES

A number of FE colleges in the UK have started training students for the fracking industry. Blackpool and The Fylde College (B&FC) has been announced as the UK hub for the National College for Onshore Oil and Gas. £1.5 million funding will be jointly funded by the Department for Business, Innovation and Skills (DfB) and the onshore oil and gas industry.

Redcar and Cleveland College will also become part of this national training centre for the fracking industry and will offer specialist training and qualifications to students. It is already working with Tees Valley Unlimited to create a new £7.4m oil and gas academy on its campus.

FUNDING COUNCILS

EPSRC Successful Research Grants	2001/2002	2008/2009	2011/2012	2012/2013	2013/2014	2014/2015
Durham University				£402,150		
NERC British Geological Survey				£893,883		
Swansea University					£98,599	
University of Edinburgh				£236,177		
University of Oxford				£378,710		
University of Sheffield	£62,738					
NERC Successful Research Grants						
University of Leicester		£67,559				£85,514
University of Portsmouth						£83,515
University of East Anglia					£122,949	
Scottish Universities Env Research Cen,					£48,201	
Edinburgh University					£34,914	
University of Manchester						£74,789
University of Cambridge			£73,767			
University of Leeds						£83,515
University of Manchester						£582,119
NERC Centre for Ecology and Hydrology					£84,121	
University of Bristol					£184,490	£83,515
University of Durham					£65,738	
University of Hull						£39,372
STFC – Laboratories, RAL Space						£57,897
European Union						
University of Portsmouth					£74,427	
Other						
Newcastle University					£60,000	
Total	**£62,738**	**£67,559.00**	**£73,767.00**	**£1,910,920**	**£707,701**	**£1,006,721**

A number of institutions have developed specific research groups investigating shale gas and many of the funded projects are joint ventures linking academics from different institutions and the private sector.

Research projects range in topic from assessing the UK's deposits, improving the efficiency of the extraction process (making the process more economically viable), combining the process with carbon capture and storage, monitoring for leakage into ground water and assessing the public's perception of the risks associated with fracking.

CORPORATE LINKS

Public funding is mainly directed through the Engineering and Physical Sciences Research Council (EPSRC) and Natural Environment Research Council (NERC). However, initial research shows strong corporate ties to institutions in terms of funding and partnerships, between fossil fuel companies and both NERC, EPSRC and directly with individual universities and other public bodies.

EPSRC and NERC are both publicly funded bodies and have both seen their budgets cut over the past few years as part of the governments austerity drive. This has led to increasedg pressure for the private sector to take up the slack. NERC itself has a memorandum of understanding with Shell which allows it access to the knowledge and expertise drawn from its £330m portfolio of research activities.

NERC has invested in ReFINE – an independent research consortium led by Durham University, in conjunction with Newcastle, Heriot-Watt and Keele universities. The consortium focuses on the issue of shale gas and oil exploitation, fracking methods and associated risks. Funding for the consortium also comes from Shell, Total and Chevron, with the Environment Agency, DECC and the European Commission Joint Research Centre participating in an advisory-stakeholder capacity.

One example of direct corporate ties to research is Durham University's Shale Gas Group in its Energy Institute. Researchers in the group have received funding from a range of companies including BP, I-Gas, Chevron, Total, Statoil, ENI and Saudi Aramco. The executive director was formerly a director at the energy regulator Ofgem and previously worked in the oil industry for ExxonMobil.

British Geological Survey states in its annual report that 'it has increased its international reach over the years so that it now counts almost every major oil company among its sponsors' and pulls in £20.2 million in external

CONCLUSIONS

People & Planet believes that, whilst it is undoubtedly important that current technological and societal issues are researched, the access to and funding of research by the fossil fuel industry casts doubt on the agenda surrounding this research. Much publicly funded research appears to be orientated towards enabling the fracking industry to make increased profits from undertaking dangerous and publicly unsupported unconventional fossil fuel extraction. This amounts to an effective subsidy for an industry which is intent on exploiting unburnable reserves.

This nexus of corporate interest and public funding is damaging to the integrity of universities, and is funding a practice that flies in the face of governmental commitments to protect the environment and reduce carbon emissions.

Although our research into the links between the industry and universities is incomplete at this stage, the evidence we have points to deep financial and academic ties that have repercussions on the academic independence of institutions and further the agenda of privatisation in education.

References for data can be found at: https://drive.google.com/file/d/0B1G8lkB5E1unbnEtZzVvdmg0alU/view?usp=sharing