

June 2019



Objection to Petroleum Licence Application PLA1/16 submitted by EHA Exploration Limited

Climate change

Climate change is the greatest threat facing humanity. The science is very clear. We must significantly reduce our greenhouse gas emissions in the next few years if we are to avoid catastrophic climate change. We have seen an increase of more than 1°C above pre-industrial temperatures, and the impacts are already becoming evident - heat waves, wild-fires, floods, severe storms, and droughts. These impacts will only get worse as temperatures continue to rise.

International emissions reductions pledges for the Paris Agreement are projected to result in a 3°C rise¹. In order to avoid catastrophic climate change, we must make drastic cuts very soon.

In May 2019 the Committee on Climate Change (CCC) published its recommendations for climate change policies². They included a target of net-zero greenhouse gas emissions by 2050. The report recommends greater energy efficiency to reduce energy demand, and a rapid transition to electricity for heating, beginning before 2030. Both policies would dramatically reduce the demand for fossil fuels.

The Intergovernmental Panel on Climate Change Special Report on 1.5°C warming, published in October 2018³, asserted that we have just 12 years to make dramatic cuts in greenhouse gas emissions if we are to avoid catastrophic climate change.

EHA Exploration makes no mention of what the potential oil and gas resource might be, and how long it plans to operate in Northern Ireland. However, given the projected timescales outlined in the CCC and IPCC reports, it is clear that any fossil fuel extraction is incompatible with the urgent need to cut emissions.

Carbon budget

In order to have a good chance of staying below a 2°C temperature rise, the planet as a whole is limited to around 800 billion tonnes of CO₂ (GtCO₂). If we are to stay below 1.5°C, the preferred target in the Paris Agreement, we cannot emit more than about 400GtCO₂. If we were to burn all of the known reserves of fossil fuels, it would produce around 2,600GtCO₂⁴. In other words, almost all of the known reserves of fossil fuels must remain in the ground.

Proponents of gas describe it as a low-carbon fuel, making it an attractive energy option. However, this calculation doesn't take into account fugitive emissions, methane lost during the drilling, extraction, and transportation phases. Multiple peer-reviewed studies have

¹ <https://www.un.org/press/en/2017/sgsm18543.doc.htm>

² <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

³ <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>

⁴ <http://priceofoil.org/2016/09/22/the-skys-limit-report/>, Table 1 and Figure 2.

shown that gas is not as low in carbon emissions as the industry claims. For example, the US EPA has revised upwards by 50 – 60% emissions from gas⁵. Studies have also shown that official greenhouse gas inventories underestimate emissions from fossil fuel producing areas⁶. Methane is a potent greenhouse gas, up to 34 times stronger than CO₂ at a 100 year time frame.

Northern Ireland's per capita emissions are higher than the UK average, accounting for 4.4% of the UK's total emissions⁷. In addition, Northern Ireland's emissions are falling significantly lower than the UK average, achieving just 16% reduction compared to the UK's 41%. If Northern Ireland is to do its fair share in tackling climate change, there is simply no room in the carbon budget for new fossil fuel exploitation.

Restricts future climate action

There is currently no operational Assembly, and no Ministers in post. The Northern Ireland (Executive Formation and Exercise of Functions) Act 2018 gives civil servants the authority to make decisions in the absence of Ministerial oversight. However, awarding petroleum licences aren't mundane or routine decisions. They have the potential to set Assembly policy for many decades, and could make it difficult and costly for a future Assembly to move to a low-carbon economy. We believe the Department would be acting outside of its authority if it approved this licence application in the absence of a Minister being in post.

Environmental impacts

Oil and gas exploitation, including the exploration phase, is associated with several significant environmental impacts. Experience around the world suggests there is high risk of water contamination and air pollution, and without adequate assessment, the whole licencing regime is likely to be unlawful.

No Strategic Environmental Assessment

Oil and gas exploration and extraction bring many environmental risks, as outlined by the UN Environment Program⁸. Despite these risks, no Strategic Environmental Assessment has been carried out for the licencing regime. Consequently, Friends of the Earth asserts the licencing regime, and all licences issued under it, are in breach of the European Strategic Environmental Assessment Directive, and the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004.

Water contamination

There is considerable evidence of contamination from both methane and the drilling process. Water contamination is a particular concern in Northern Ireland. The petroleum licence area includes wetlands, river catchments, and the Lough Neagh ASSI, SPA, and Ramsar site, which supplies about 40% of Northern Ireland's drinking water, and is hydrologically connected to coastal zones. Contamination of the Northern Ireland environment could have

⁵ Upward revision of global fossil fuel methane emissions based on isotope database, Nature, 538 (7623), pp 88 – 91 <https://www.nature.com/articles/nature19797>

⁶ Anderson, Kevin ; Broderick, John. / Natural gas and climate change. University of Manchester, 2017. 58 p [https://www.research.manchester.ac.uk/portal/en/publications/natural-gas-and-climate-change\(c82adf1f-17fd-4842-abeb-f16c4ab83605\).html](https://www.research.manchester.ac.uk/portal/en/publications/natural-gas-and-climate-change(c82adf1f-17fd-4842-abeb-f16c4ab83605).html).

⁷ <https://www.daera-ni.gov.uk/publications/northern-ireland-greenhouse-gas-inventory-1990-2016-statistical-bulletin>

⁸ UNEP (2012) *op cit*

serious and far-reaching implications. Several rivers in the licence area are already categorised as poor or bad status under the Water Framework Directive.

Air pollution

Oil and gas extraction has also been linked to increased levels of air pollution and associated health problems. Studies have shown that 50% of oil and gas wells leak within 30 years⁹. Air quality issues are highlighted in a report by the US Congressional Research Service¹⁰. Among the air pollutants from natural gas are methane, Volatile Organic Compounds, and nitrogen oxides. The interaction of these pollutants is linked with low-level ozone, smog, and acid rain. Smog is associated with respiratory problems.

Strategic Planning Policy Statement

The Strategic Planning Policy Statement (SPPS) includes a presumption against the extraction of hydrocarbons¹¹. While this presumption may apply to the extraction phase only, and not to the exploration phase, it does raise the question, why bother with the exploration phase if the extraction phase is likely to be refused? There would need to be a very good reason for proceeding to over-ride the presumption against extraction. The pressing need to reduce emissions quickly and significantly sets an extremely high bar, so it's difficult to see what this over-riding argument is. Consequently, there is no good reason to award an exploration licence.

Social licence

EHA Exploration Ltd has no social licence to proceed with its plans to drill. On every occasion that exploratory drilling has been attempted, significant local, cross-community opposition has formed.

Not only have oil and gas exploration operations no social licence, but they also cost the tax payer. InfraStrata's drilling operation at Woodburn Forest, Carrickfergus, resulted in a policing overtime bill of £326,903, with an estimate total cost in excess of £1m¹². The disruption to the lives of local people, and the cost to the public purse, indicate that this licence application should be refused

Economic case

The oil and gas industry has made some grandiose claims about its economic benefits. These claims don't stand-up to scrutiny. Contrary to industry claims, there are no indications that economically viable oil or gas reserves are to be found anywhere on the island of Ireland. For example, the Corrib gas field has made losses of around €2bn¹³, and Shell exited the project in 2017, incurring losses of \$900m¹⁴.

Gas prices

There is great scepticism among experts that oil and gas extraction lowers local fuel prices. A report by consultants Poyry for OFGEM concluded that only a shale gas boom in Europe would lead to significantly lower gas prices in the UK, and such a boom was a "a low

⁹ Fugitive emissions of methane from abandoned, decommissioned oil and gas wells, Boothroyd et al, 2016 <https://www.sciencedirect.com/science/article/pii/S0048969715312535>

¹⁰ Methane and other air pollution issues in natural gas systems, Congressional Research Service, 2018

¹¹ Policy 6.157, page 78 http://www.planningni.gov.uk/index/policy/spps_28_september_2015-3.pdf

¹² <https://www.belfasttelegraph.co.uk/news/northern-ireland/woodburn-forest-psni-accused-of-squandering-1m-on-policing-oil-drill-protest-34868712.html>

¹³ <https://www.independent.ie/business/irish/losses-on-corrib-near-2bn-as-shell-sells-up-35924303.html>

¹⁴ <https://www.rte.ie/news/business/2017/0712/889640-shells-corrib-sale/>

*probability outcome*¹⁵. Also, the impact on gas prices depends on what happens elsewhere in Europe: Northern Ireland production is not significant in this respect.

Oil and gas production costs in Northern Ireland are likely to be higher than in established production regions. Reasons for this include less promising geology, higher population density and associated problems of land availability, the lack of a competitive onshore drilling and services industry, and tougher environmental regulation¹⁶. Factors such as these led the International Energy Agency (IEA) to conclude that operating costs in Europe will be 30-50% higher than in the US¹⁷.

Claims of cheaper gas prices also ignore global market dynamics. Demand for gas is rising fast, particularly from China, India and other emerging economies. This growing demand is likely to soak up new gas supplies, potentially keeping supply constrained and prices high, meaning that *“UK households and industry would be tied to a highly unpredictable roller coaster of gas prices that are generally high and can spike higher due to volatility”*¹⁸. The IEA’s analysis shows that gas prices in Europe will be around 40% higher than at the time of writing in 2035¹⁹.

Jobs and the local economy

The oil and gas industry paints an overwhelmingly positive picture of its local economic impact through job creation. For example, applying for a licence in Fermanagh, Tamberlan has claimed that it would create up to 3000 jobs.

However US experience shows that such claims should be treated with scepticism: numbers can be over-stated²⁰; UK job projections have been reduced by a third²¹; most employment is in the drilling phase, which only lasts around a year²²; and many jobs go to transient workers who move from one well to another, with 70% of gas well drilling jobs in Pennsylvania going to people from out of state. Northern Ireland has no expertise in drilling for oil and gas, so it is very likely that the technical, well-paid jobs will go to people already working in the industry.

Nor has any estimate been made of potential negative impacts on other economic sectors. Agriculture, fishing, and tourism are all important sectors in the area covered by the licence. No assessment has been made of the potential impacts of oil and gas exploration and extraction on these industries.

¹⁵ Poyry for OFGEM (2011) ‘The impact of unconventional gas on Europe’
www.poyry.co.uk/sites/www.poyry.uk/files/The_Impact_of_Unconventional_Gas_on_Europe.pdf

¹⁶ Chatham House (2010) #The shale gas revolution: hype and reality’
http://www.chathamhouse.org/sites/default/files/public/Research/Energy,%20Environment%20and%20Development/r_0910stevens.pdf

¹⁷ International Energy Agency (2012) ‘Golden Rules for a Golden Age of Gas’ op cit

¹⁸ Paul Ekins New Scientist 6th December 2012 ‘The UK’s new dash for gas is a dangerous gamble’
www.newscientist.com/article/dn22594-the-uks-new-dash-for-gas-is-a-dangerous-gamble.html

¹⁹ International Energy Agency (2012) ‘Golden Rules for a Golden Age of Gas’ op cit

²⁰ Research for Cuadrilla shows that the number of jobs created at around 1,600 in Lancashire and 5,600 in the UK for four years from 2016 to 2019, falling to under 200 from 2022 onwards. Regeneris Consulting Economic impact of shale gas exploration & production in Lancashire and the UK

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²² ENR New York March 7th 2011 ‘Hydrofracking offers Short-Term Boom, Long-Term Bust’
http://newyork.construction.com/opinions/viewpoint/2011/0307_HydrofrackingOffers.asp

Research from the US shows that investing \$1 million in renewable energy creates more than two to three times as many jobs as investing the same amount in gas²³. The Northern Ireland Green New Deal group published research that suggests energy efficiency and renewables could be major employers, with the potential to create 10s of 1000s of skilled and semi-skilled long-term jobs²⁴. It is to these, low-carbon technologies and methods that we should be looking, not more climate changing fossil fuels.

Conclusion

Given the urgent need to slash our carbon emissions, the incompatible timelines, the lack of a Strategic Environmental Assessment (rendering the licencing regime unlawful), the dubious economics, and the question mark over the possibility of moving to full exploitation, the rational decision should be to refuse to issue the exploration licence.

Friends of the Earth is a collective name for Friends of the Earth Trust, registered charity 281681, company number 1533942, and Friends of the Earth Limited, company number 1012357, both of which may use the above information. In both cases the registered office is at 26-28 Underwood Street, London N1 7JQ Tel: 020 7490 1555 Fax: 020 7490 0881 Email: info@foe.co.uk Website: www.foe.co.uk , company number 1012357 © Friends of the Earth 2016. All rights reserved. No part of this book may be reproduced by any means nor translated into a machine language without written permission. Friends of the Earth would like to keep you up to date on our work and what you are helping us to achieve. If you would prefer not to receive any further communication from us please contact: colette.stewart@foe.co.uk or call 028 9023 3488 with your contact details.

²³ Investing \$1 million dollars in gas creates 5 jobs compared to 13 for wind, 14 for solar and 17 for building retrofits from the same amount of investment. Political Economy Research Institute, University of Massachusetts 'The economic benefits of investing in clean energy' www.peri.umass.edu/fileadmin/pdf/other_publication_types/green_economics/economic_benefits/economic_benefits.PDF

²⁴ The Green New Deal for Northern Ireland, <https://research-repository.st-andrews.ac.uk/bitstream/handle/10023/2219/sdc-2009-ni-green-deal.pdf>