



Britain Yearly Meeting  
of the Religious  
Society of Friends

# Scottish Government fracking consultation: notes for Friends

Friends can respond to the Scottish government's consultation on fracking before 31 May 2017 at [www.talkingfracking.scot](http://www.talkingfracking.scot). For information on fracking, and how and why Quakers are taking action to ban it, visit [www.quaker.org.uk/fracking](http://www.quaker.org.uk/fracking).

For more information please contact Chris Walker, Sustainability & Peace Programme Manager, Quakers in Britain, at [chrisw@quaker.org.uk](mailto:chrisw@quaker.org.uk) or on 020 7663 1047.

Read the official response from Quakers in Britain, submitted to the Scottish government 22 March 2017, below.

## **Response by Quakers in Britain to the Scottish government's *Talking "Fracking": a consultation on unconventional oil and gas***

### **Q1: What are your views on the potential social, community and health impacts of an unconventional oil and gas industry in Scotland?**

Whilst Quakers in Britain is primarily concerned with the impact of (UOG) extraction on the climate, we also share widespread concerns over the impact on local communities. We are aware of evidence that UOG can negatively impact on health. As the consultation document notes, the health impacts of UOG are still little understood. However, we are concerned about reports from the USA that local

communities have frequently reported symptoms associated with exposure to toxic chemicals<sup>1</sup> (see response to Q5).

**Q2: What are your views on the community benefit schemes that could apply, were an unconventional oil and gas industry to be developed in Scotland?**

For any economic development that impacts local communities, there are strong ethical arguments that such communities should benefit from investment and economic opportunity as a result. It's reasonable that income made from disruptive industries, including extraction activities, should be used to compensate local people. However, the context of UOG highlights that the value of community benefit schemes depends on the need and legitimacy of the development or industry to which it relates. Quakers in Britain believes that the development of UOG is unnecessary as Scotland can meet its energy requirements and gain more sustainable and equitable economic opportunities through investment in renewable and efficient energy. We also believe UOG would seriously undermine Scotland's ability to reduce its greenhouse gas emissions and meet its climate obligations. Community benefit schemes in this context may do more to enable the development of an unnecessary and, as we believe, unjust industry, than ensure equitable benefits to all stakeholders. Furthermore, communities most impacted by fracking and other forms of UOG include those around the world most vulnerable to climate change. Community benefit schemes in Scotland would not be able to accurately or proportionately compensate these communities.

**Q3: What are your views on the potential impact of unconventional oil and gas industry on Scotland's economy and manufacturing sector?**

It's clear that investment in any new energy source can have economic benefits, including public revenue, and job creation. Quakers in Britain recognises the value of these benefits and the importance of equitable economic opportunity. Yet government must consider the relative benefits of different energy production methods, and whether the industries that offer them are in balance with a healthy

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<sup>1</sup><https://static1.squarespace.com/static/581887f120099e33f3183e96/t/5821c541e3df285de6f9fea2/1478608194349/UFF+Overview+of+Shale+Gas+%26+CBM%2C+Nov+2016%2C+4pg+FINAL.pdf>

planet and a safe climate. Some proponents of the UOG industry appear to have overstated the economic benefits of shale gas fracking. It has been claimed, for example, that fracking would create over 1,100 jobs per well. Yet a peer-reviewed study assessing job creation from shale gas in the US suggests this figure stands at around 400, and that these jobs are likely to be short-term. This same study notes that renewable energy and energy efficiency schemes can create over six times as many jobs as gas per unit of power generated or saved, and around three times as many jobs for the same investment<sup>2</sup>.

Quakers in Britain commends the Scottish Government for committing to transition to a “resource-efficient, lower-carbon economy” as part of its Economic Strategy<sup>3</sup>. In this respect, we do not regard UOG to be resource-efficient or lower carbon, and we believe this transition requires an energy system based on renewable energy and energy efficiency.

#### **Q4 What are your views on the potential role of unconventional oil and gas in Scotland’s energy mix?**

Quakers in Britain believe that Scotland and other nations must fulfil their obligation to maintain global warming to 2°C above preindustrial levels, and working to limit this to 1.5°C by committing to quickly move beyond fossil fuels. While gas may be required as a transition fuel to a low-carbon energy system, this must be highly-restricted, regulated and within a clear timeframe. Currently none of these policy conditions are in place. This also means that we are beyond the point of developing and using new extraction techniques, including UOG, if Scotland is truly committed to fulfilling its climate obligations. The risk of fugitive emissions from UOG also means these fuels are unsuitable for the transition to a sustainable and safe energy system. The development of a UOG industry in Scotland risks tying the nation in to highly polluting and carbon-intensive fossil fuels for far longer than can be permissible in the time frame we have to tackle our climate crisis.

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<sup>2</sup> <https://www.foe.co.uk/sites/default/files/downloads/making-better-job-it-summary-75290.pdf>

<sup>3</sup> <http://www.gov.scot/Resource/0051/00513575.pdf> (p.38)

An energy mix that is both safe for our climate and meets demand should consist of a range of renewable energy sources. This would be made possible by greater energy efficiency in our energy infrastructure, homes and industries and greater interconnectivity with Europe to manage variability in renewable supplies. In 2015, The UK Committee on Climate Change noted that by 2020, renewable energy from wind and solar would be the most cost effective way to fill the UK's electricity generation gap<sup>4</sup>.

Quakers in Britain calls on the Scottish Government to increase its support for renewable energy and energy efficiency. Increasing support for renewable heat would be particularly effective at reducing Scotland's demand for unconventional gas. We note that in 2015, Scotland met only 5.3% of its heat demand from renewable gas, much below the European average of 16.5%. With heat accounting for 52% of Scotland's energy use, investment in renewable heat technology is a clear priority.

**Q5: What are your views on the potential environmental impacts of an unconventional oil and gas industry in Scotland?**

Quakers in Britain are concerned about local environmental impacts of UOG. There are many acknowledged local environmental risks associated with UOG. There appears to be ongoing uncertainty about their scale and the management of these risks. However, Quakers in Britain are aware of concerns over local pollution and seismic activity. Friends of the Earth note that the fracking and drilling process can mobilise harmful chemicals and radioactive substances into ecosystems, and estimate that new drilled wells put this form of well failure between 5-9% and upwards of 50% during their lifetime. They further note that "communities in the US and Australia living in and around gas fields report symptoms associated with

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<sup>4</sup> <https://www.carbonbrief.org/ccc-uk-wind-and-solar-will-be-cheaper-than-gas-by-2020>

exposure to fracking and drilling chemicals, including breathing difficulties, nausea, rashes, eye and throat irritation and stress”<sup>5</sup>.

**Q6: What are your views on the potential climate change impacts of unconventional oil and gas industry in Scotland?**

Quakers in Britain believes that the UOG industry would seriously undermine Scotland’s ability to meet its greenhouse gas reduction targets made under UN climate deals. This would not only impede Scotland’s potential to show leadership in the UK and nationally on this issue, but would also contribute to climatic changes that negatively impact Scotland and beyond.

The Scottish Government has reasons to celebrate with regards to progress on reducing emissions, having achieved its initial 2020 target, to reduce emissions by 42%, six years early. Yet more investment in renewable energy is needed. Investment in and support for the UOG industry would be likely to severely undermine this. Whilst Scotland’s moratorium on fracking has been encouraging, committing to an outright ban is now important in order to gain more clarity over Scotland’s energy investments and to assure the many communities who would be hardest hit by the industry’s environmental impact.

The UK Committee on Climate Change (CCC) recommends a power sector carbon intensity target of 100gCO<sub>2</sub>/KWh by 2030 and further reductions beyond this in order to achieve the UK’s commitments under the Paris climate agreement<sup>6</sup>. The carbon intensity of UOG is approximately 500 gCO<sub>2</sub>/KWh<sup>7</sup>. This does not count fugitive emissions from UOG extraction processes, including methane which is approximately 28-34 times more potent a greenhouse gas than CO<sub>2</sub> over a 100 year period<sup>8</sup>. Research suggests that the biggest cause of a large and concerning increase in

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<sup>5</sup><https://static1.squarespace.com/static/581887f120099e33f3183e96/t/5821c541e3df285de6f9fea2/1478608194349/UFF+Overview+of+Shale+Gas+%26+CBM%2C+Nov+2016%2C+4pg+FINAL.pdf>

<sup>6</sup> Setting the Fifth Budget. Fifth Session of 2015-16. (Publish 27<sup>th</sup> April 2016). House of Commons Energy & Climate Change Committee.

<sup>7</sup> UNEP (2012) Thematic focus: Resource Efficiency, Harmful Substances and Hazardous Waste. UNEP Global Environmental Alert Service (GEAS) November 2012. (p.4)

<sup>8</sup> <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>

global methane emissions in the last decade may be the expansion of the fracking industry in the U.S.<sup>9</sup> It's clear that further expansion of the industry could be highly dangerous for our climate.

**Q7: What are your views on the regulatory framework that would apply to an unconventional oil and gas industry in Scotland?**

As previously noted, the UK Committee on Climate Change (CCC) recommends a power sector carbon intensity target of 100gCO<sub>2</sub>/KWh by 2030 and further reductions beyond this<sup>10</sup>. The carbon intensity of UOG is approximately 500 gCO<sub>2</sub>/KWh<sup>11</sup>. It is currently very unclear how existing regulatory frameworks relating to Scotland's greenhouse gas emissions would be implemented and enforced in order to adequately mitigate emissions from UOG in line with Scotland's international climate commitments. The CCC have noted that "*The current regulatory framework in Scotland for greenhouse gas emissions from UOG lacks clarity over the responsibilities and roles of the various actors and may have gaps relating to regulation of emissions to air including fugitive methane emissions*"<sup>12</sup>. We are concerned about these regulatory 'gaps' relating to fugitive emissions from UOG. It is unclear how these fugitive emissions will be measured and mitigated. Technologies to address these fugitive emissions and the safe decommissioning of UOG extraction sites would be essential to mitigating greenhouse gas emissions. These requirements would likely add to the cost of fracked gas, either to fuel consumers or the tax payer in the form of government subsidy. Considering the significant level of greenhouse emissions from UOG, and ongoing uncertainty of implementation and enforcement of Scotland's regulatory framework relating to greenhouse gas reduction, Quakers in Britain believes that pursuing UOG in Scotland would be unsafe.

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<sup>9</sup> <http://www.climatecentral.org/news/us-60-percent-of-global-methane-growth-20037>

<sup>10</sup> Setting the Fifth Budget. Fifth Session of 2015-16. (Publish 27<sup>th</sup> April 2016). House of Commons Energy & Climate Change Committee.

<sup>11</sup> UNEP (2012) Thematic focus: Resource Efficiency, Harmful Substances and Hazardous Waste. UNEP Global Environmental Alert Service (GEAS) November 2012. (p.4)

<sup>12</sup> <http://www.gov.scot/Resource/0051/00510364.pdf> (p.17).

**Q8: Overall, and in light of the available evidence, what do you think would be the main benefits, if any, of an unconventional oil and gas industry in Scotland?**

Overall, the fracking industry would clearly provide investment in Scotland's energy sector, helping to supply fuel demand, create jobs and some economic opportunity for Scotland. However, as discussed in answers above, Quakers in Britain believes that an energy sector that works in harmony with a safe climate, that provides cost effective energy, and offers equitable economic opportunity and long-term jobs can only be achieved by banning UOG and investing in renewable, efficient energy instead.

**Q9: Overall, and in light of the available evidence, what do you think would be the main risks or challenges, if any, of an unconventional oil and gas industry in Scotland?**

Quakers in Britain are concerned about a wide range of risks associated with UOG, including damage to local ecosystems, adverse health impacts on local communities, and the potential missed opportunity to commit to a truly sustainable, renewable and efficient energy system. However, we regard the primary risk of UOG to be its impact on a safe and stable climate. Intensive extraction of fossil fuels at this time appears to disregard the grave risks that climate change poses to our healthy living planet, and particularly communities around the world who are most vulnerable to this crisis. As well as this direct risk to our planet, pursuit of UOG would undermine Scotland's standing in global efforts to tackle climate change and commit to a sustainable global society.

**Q10: If you have any other comments on the issues discussed in this consultation, please provide them here**

We appreciate the opportunity to respond to this consultation. Our response is based on the collective concern of Quakers regarding our climate crisis and our joint call for a transition to renewable, efficient energy system. As a faith community, we are taking many steps in our own lives to live in balance with a healthy living planet and a

safe and stable climate. Yet for Scotland and other nations to adequately transition to a sustainable economy and society, we require governments to take bold steps to determine the sustainability of our energy system and wider economy. In the light of our deepening climate crises, Quakers in Britain calls on the Scottish Government to take decisive action and ban unconventional gas and oil.

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