

## Response ID ANON-NKE3-2GZJ-E

Submitted to **A consultation on the Scottish Government's preferred policy position on unconventional oil and gas (UOG), the Strategic Environmental Assessment (SEA) Environmental Report, and partial Business and Regulatory Impact Assessment (BRIA)**

Submitted on **2018-12-15 23:55:08**

### Questions

**What are your views on the accuracy and scope of the information used to describe the SEA environmental baseline set out in the Environmental Report?**

**What are your views on the accuracy and scope of the information used to describe the SEA environmental baseline set out in the Environmental Report? :**

Air: An important omission from the report is the possible production of hydrogen sulphide (H<sub>2</sub>S) as a by-product of the exploitation of shale reservoirs. H<sub>2</sub>S smells of rotten eggs in minutes quantities, but at higher levels becomes odourless. It is highly poisonous.

Water: Geological faulting is discussed only in passing, within the context of seismicity (para. 13.63). My evidence on the importance of such faulting as a possible conduit for contamination of groundwater resources has not been included in the SEA.

These omissions, if taken into account, will serve to strengthen the case for converting the current moratorium into an outright ban (i.e. option 1).

**What are your views on the predicted environmental effects as set out in the Environmental Report?**

**What are your views on the predicted environmental effects as set out in the Environmental Report?:**

In view of the above omissions, the conclusion of "a cumulative potential significant negative but uncertain effect" is reinforced.

**What are your views on the 'reasonable alternatives' outlined in the Environmental Report? Please provide any other 'reasonable alternatives' which you think should be considered.**

**What are your views on the 'reasonable alternatives' outlined in the Environmental Report? Please provide any other 'reasonable alternatives' which you think should be considered. :**

The report describes two alternatives: 'business as usual' and a pilot project. I concur with the view of the Scottish Government, which is not minded to view these as reasonable alternatives.

**What are your views on the findings of the SEA and the proposals for mitigation and monitoring of the environmental effects set out in the Environmental Report?**

**What are your views on the findings of the SEA and the proposals for mitigation and monitoring of the environmental effects set out in the Environmental Report?:**

Chapter 15 (Mitigation) states that only the two alternatives to the government's preferred position would require mitigatory measures, because option 1 means that no mitigation would be necessary. This is correct, in my view.

Paras. 15.10-15.16 discuss possible mitigation measures to be taken in the event of water resource contamination by flowback and produced water, assuming that either option 2 or option 3 were adopted. Concerning the measures discussed in relations to underground events, as opposed to surface events, the following measures:

- Treatment of wastewater (15.10)
- Substitutes for hydraulic fracturing fluids (15.11)
- Monitoring fluid leaks (15.12)
- Borehole leaks (15.16)

all have in common a reliance on immature or experimental technologies. Therefore they have no place in either options 2 or 3, and serve further to strengthen the case for option 1.

**Do you have any views on the proposals contained within the Scottish Government's preferred policy position statement? There is no need to restate views already expressed in relation to the Talking "Fracking" public consultation as these have been, and will continue to be, taken into account as we move towards finalising the Scottish Government's policy position.**

**Do you have any views on the proposals contained within the Scottish Government's preferred policy position statement? There is no need to restate views already expressed in relation to the Talking "Fracking" public consultation as these have been, and will continue to be, taken into account as we move towards finalising the Scottish Government's policy position.:**

For the avoidance of doubt, I refer to my response to the 2017 consultation. This is a detailed document of 71 pages, 26,000 words. I consider this to be still up-to-date, and not superseded by any more recent findings of the last 18 months.

**What are your views on the opportunities and challenges that each of the 3 options set out in the partial BRIA could have for businesses?**

**What are your views on the opportunities and challenges that each of the 3 options set out in the partial BRIA could have for businesses?:**

I support option 1, the preferred policy position, based on the overriding importance of combating climate change by:

- Reducing to zero the current burning of fossil fuels, while at the same time
- Minimising the release of stray greenhouse gases.

This means leaving the potential fossil fuel in the ground..

I do not support option 2, business as usual. I have previously shown that the KPMG Economic Impact 2016 report is flawed, because its sources are biased towards an optimistic industry view of the likely success of an unconventional industry. This conclusion applies equally to the low, central and high scenarios of putative future production.

Similarly, given the costs of UOG production in the USA (where, in round terms, the cost of unconventional gas production has been double the net income from sale of gas), together with the likelihood that UK production costs will be double that of the USA, there is no justification for even trying option 3, the pilot scheme.

I propose an amendment to option 1. The proposed benefits include:

"Current holders of PEDLs in Scotland may consider changing the hydrocarbon resource they wish to target, with the agreement of Scottish Ministers as licensing authority, allowing them to continue to take advantage of their investment to date in the licence. The choices made by individual PEDL holders will have implications for those businesses providing the skills, equipment and services required to support any future activities, whether it be exploration of another resource or decommissioning of existing sites."

There are only two licences, PEDL133 and PEDL 162. The latter licence is held by Ineos Shale and Reach Coal Seam Gas. It was awarded to Reach in 2008. PEDL133 was awarded to Composite Energy in 2004, and is now shared by Ineos Shale and IGas. It would appear that both licences were awarded for coal bed methane development.

The Ineos Shale website shows the two PEDLs, but gives no details of operations in these two Scottish licences, in contrast to its operations in NW England and the East Midlands. This suggests that little or no exploration activity has been carried out in the Scottish PEDLs to date.

I see no valid reason for the concession stated in the first sentence of the quotation above to be granted, and I recommend that it be dropped from option 1. Furthermore, if option 1 be adopted, it follows that the two PEDLs should be cancelled, since they were both awarded for UOG development.

France cancelled all its UOG licences in 2011. Its constitutional court upheld the ban, saying that the cancellation on grounds of climate change (by reducing the emission of greenhouse gases) was a valid and overriding reason. The licensees affected received no compensation. Minimisation of greenhouse gas emissions is the overriding objective of the Scottish government's adoption of option 1.

If option 1 is adopted I see no reason why Scotland cannot follow in the footsteps of France. The concession discussed above should be withdrawn.

## About you

### What is your name?

**Name:**

Professor David Smythe

### What is your email address?

**Email:**

david.smythe@glasgow.ac.uk

### Are you responding as an individual or an organisation?

Individual

### What is your organisation?

**Organisation:**

### If you are responding on behalf of an organisation, please select a type/sector that best describes your organisation.

Not Answered

### If other, please specify.:

### The Scottish Government would like your permission to publish your consultation response. Please indicate your publishing preference:

Publish response with name

**We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?**

Yes

## Evaluation

**Please help us improve our consultations by answering the questions below. (Responses to the evaluation will not be published.)**

**Matrix 1 - How satisfied were you with this consultation?:**

Slightly satisfied

**Please enter comments here.:**

**Matrix 1 - How would you rate your satisfaction with using this platform (Citizen Space) to respond to this consultation?:**

Very satisfied

**Please enter comments here.:**

Need an assurance at the start that a copy of the submission will be made available.