

Minister for Business, Energy and Tourism

UNCONVENTIONAL OIL AND GAS: OGA POSITION ON EXTANT PEDLS IN SCOTLAND

Purpose: to clear a response from officials to recent correspondence from the Oil and Gas Authority (OGA) on their intention to extend two PEDL licences in Scotland.

Priority: Urgent (a response by Friday 11 March will allow officials to send a response to the OGA on their deadline of Monday 14 March).

Background

1. In line with the Scottish Government's cautious, evidence-led approach to unconventional oil and gas, in January 2015 Ministers asked the UK Government not to grant any onshore Petroleum Exploration and Development Licences (PEDLs) in Scotland.
2. On 7 Aug 2015, the UK Department for Energy and Climate Change (DECC) issued letters to seven companies who applied for 14th round exploration licences in Scotland to inform them that they will not issue any further PEDLs in Scotland.
3. The Scotland Bill 2015 includes provisions to devolve onshore oil and gas licensing to the Scottish Parliament. Until the powers are passed to the Scottish Parliament, the Oil and Gas Authority (OGA) remain responsible for all existing PEDLs.
4. There are four extant PEDLs in Scotland (**Annex A**).

Update on licence extensions in Scotland

5. On 16 February 2016, the OGA wrote to officials outlining their intention to extend two extant PEDLs in Scotland. A copy of the correspondence is provided at **Annex B**.
6. PEDLs are time bound and operators must demonstrate progress on the terms of the licence before a licence can proceed to its next term. The two licence holders in Scotland (Ineos and IGas) have approached the OGA seeking an extension to their licences which are approaching their expiry date.
7. Each licensee has asked for an extension on the basis that the Scottish Government's moratorium has not allowed them to complete the work required for their licence to proceed to the next term.
8. The OGA consider these extensions reasonable and consistent with past practice in extending licences, and therefore intend to extend the licences.
9. In view of the planned devolution of onshore licensing, the OGA have notified officials of their intention and given us an opportunity to provide views, which the OGA have indicated they would

take into account before making a final decision as to whether to grant extensions. If we do not respond by 9 March, the OGA will take action to extend the licences.

10. The matter has been discussed with SpAds.

11. Officials propose issuing the following response to the OGA. The response will be issued by officials.

Thank you for your correspondence dated 16 February, the contents of which we have noted. We are pleased to note from your letter that the moratorium on granting consents for unconventional oil and gas developments is having its intended effect. No unconventional oil and gas extraction can take place whilst the moratorium is in place.

Recommendation

We ask that you note the content of this minute and confirm that you are content for officials to issue the response set out at para 11.

[redacted]
Onshore Oil and Gas
Ext [redacted]

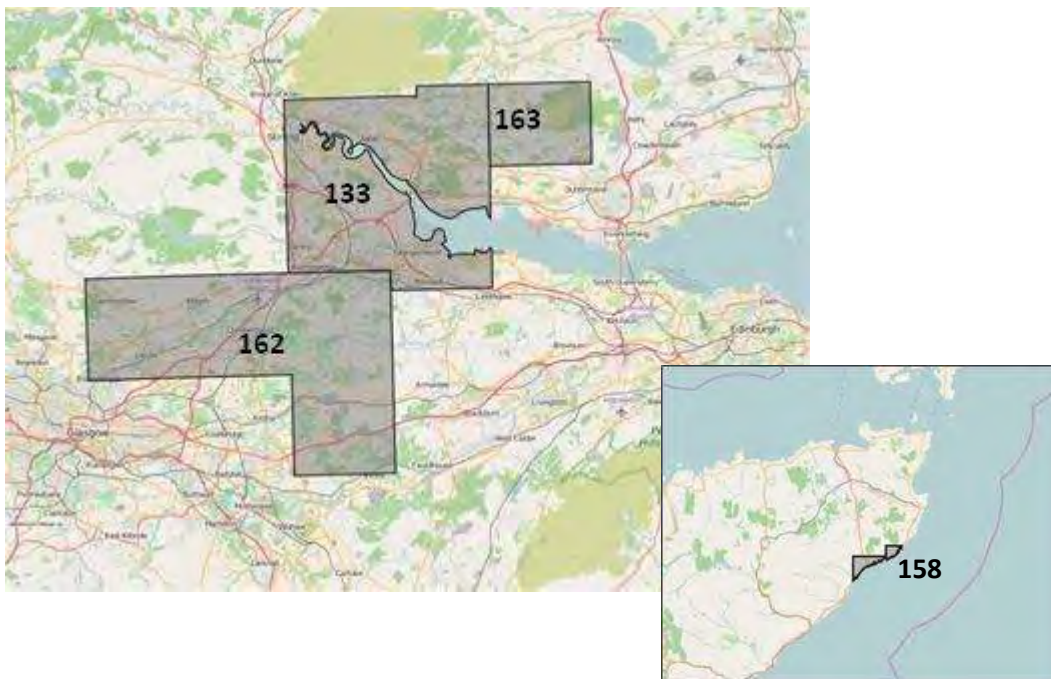
Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
First Minister					
Deputy First Minister and Cabinet Secretary for Finance, Constitution and Economy			X		
Cabinet Secretary for Social Justice, Communities and Pensioners' Rights			X		
Minister for Environment, Climate Change and Land Reform			X		

Permanent Secretary
DG Enterprise, Environment and Innovation
Mary McAllan
Chris Stark
David Ritchie
John McNairney
George Burgess
[redacted]
[redacted]
Liz Lloyd
[redacted]
[redacted] (Comms FM/DFM/Economy)
[redacted] (Comms FM/DFM/Economy)

UNCONVENTIONAL OIL AND GAS: UPDATE ON EXTANT PEDL'S IN SCOTLAND

Summary of extant PEDLs in Scotland

PEDL	status
163 owned by IGAS	Inactive. Second Term Expiry 30-Jun-2019. <u>OGA intend to extend by 2 years.</u>
133 owned by INEOS	Inactive. Production term Expiry 30-Jun-2035
158 owned by IGAS	Active (Onshore location for offshore conventional field). Production term Expiry 30-Sep-2035
162 owned by INEOS	Inactive. First term due to expire 30/06/16. <u>OGA intend to extend by 2 years.</u>



UNCONVENTIONAL OIL AND GAS: UPDATE ON EXTANT PEDL'S IN SCOTLAND

Copy of Correspondence from OGA

Dear

Re: intended extension of two existing Petroleum Exploration and Development Licences (PEDLs) in onshore Scotland

There are two extant onshore petroleum licences in Scotland with approaching expiry dates and the licensees have requested an extension to these licence. These licences allow a holder to search and bore for and get petroleum which would otherwise be vested in the Crown. However, importantly, they do not set aside planning laws; so, for any onshore activity, planning permission would also be needed.

As the current licensing authority, the Oil and Gas Authority (OGA) must decide whether to extend the licence period for each licence (by way of a formal amendment to the licence) or let the licences expire. However, in accordance with the new devolution settlement set out in the Scotland Bill currently before Parliament and the proposals for the devolution of onshore licensing within that, it is likely that, should we extend the licences, we would be extending them into a period of time in which Scottish ministers will be the licensing authority for these licences.

For the reasons set out below, we are minded to grant an extension to both licences.

Each licensee has asked for an extension on the basis that the Scottish Government's moratorium on granting consents for unconventional oil and gas developments means they have not been able to complete the work required for their licence to proceed to the next term.

Licence	Operator	Current term of licence	Expiry date	Reason given for extension request	Length of extension OGA minded to grant
PEDL162	Ineos	First term	30 June 2016	Unable to gain permission to drill and fracture their commitment well	2 years
PEDL163	IGas	Second term	30 June 2019	Have drilled one well but need to fully appraise this if an FDP is to be submitted and approved by the second term licence expiry date (as is required for the licence to continue to a third term) Further wells would need to be drilled and fractured to fully appraise the well and they are unable to gain these permissions	2 years

We consider these extensions reasonable and consistent with past practice in extending licences.

Given the planned devolution of onshore licensing, we wish to make the Scottish Government aware of our intended actions so that that they can provide views, and we can take any such views into account before making a final decision as to whether to grant extensions.

If you have any comments, I would be grateful if you could reply to this email by the end of 1 [now 7] March 2016. If you require any further information or this time period is insufficient please let me know.

Yours sincerely

From: [redacted]
Sent: 21 June 2016 16:38
To: Cabinet Secretary for Economy, Jobs and Fair Work;
Minister for Business, Innovation and Energy
Cc: Cabinet Secretary for the Environment, Climate
Change and Land Reform; Cabinet Secretary for
Communities, Social Security and Equalities; Cabinet
Secretary for Health and Sport; Minister for Local
Government and Housing; DG Enterprise,
Environment & Innovation; Stark C (Chris); Ritchie D
(David) SEPD; McNairney J (John); Burgess WG
(George); Ireland J (John); Kearns SJ (Sue); [redacted]; [redacted]; [redacted];
Brown
GJ (Gareth); [redacted]; Lloyd E (Elizabeth);
McFarlane J (John); [redacted]; [redacted]; [redacted]
Subject: UNCONVENTIONAL OIL AND GAS: MINISTERIAL
MEETINGS WITH STAKEHOLDERS

Follow Up Flag: Follow up
Flag Status: Completed

PO Cabinet Secretary for the Economy, Jobs and Fair Work
PO Minister for Business, Innovation and Energy

[redacted]/[redacted],

Please see short email submission below on ministerial meetings with stakeholders
this summer. The
advice has been discussed with SpAds, Comms and relevant policy teams.

Cabinet Secretary for Economy, Jobs and Fair Work
Minister for Business, Innovation and Energy

Cc for comment: Cabinet Secretary for Environment, Climate Change and Land
Reform; Cabinet
Secretary for Communities, Social Security and Equalities; Cabinet Secretary for
Health and Sport.

UNCONVENTIONAL OIL AND GAS (UOG): MINISTERIAL MEETINGS WITH
STAKEHOLDERS

Purpose: advice on ministerial meetings with stakeholders on unconventional oil and
gas (UOG).

Priority: Routine (final reply deadline to FoE Scotland 28 June; final reply deadline to
UKOOG 30 June)

Background

1. On 28 Jan 2015 the Scottish Government announced a moratorium on UOG,
which is being

accompanied by a programme of evidence-gathering and public consultation.

2. In March 2015, Ministers held a series of meetings with organisations representing the main stakeholder interests. The meetings gave Ministers and stakeholders an opportunity to discuss the public consultation and programme of evidence-gathering. Subsequent meetings with COSLA and the RSPB were also held. A summary of the meetings is provided below.

* 24 March 2015 - Cabinet Secretary for Social Justice, Communities and Pensioners' Rights and Minister for Environment, Climate Change and Land Reform met with the Broad Alliance (an umbrella group of concerned communities).

* 25 March 2015 - Minister for Business, Energy and Tourism and Minister for Environment, Climate Change and Land Reform met with UK Onshore Operators Group (UKOOG) (trade body).

* 25 March 2015 - Minister for Business, Energy and Tourism and Minister for Environment, Climate Change and Land Reform met with Friends of the Earth Scotland (FoE Scotland).

* 10 June 2015 - Cabinet Secretary for Social Justice, Communities and Pensioners' Rights met with COSLA.

* 24 June 2015 – Minister for Environment, Climate Change and Land Reform met with the RSPB.

3. Scottish Environment LINK (SE LINK) have since established a group to represent their members' interests on UOG, including WWF and RSPB. The group is chaired by FoE's Head of Campaigns, [redacted].

4. The Cabinet Secretary for Economy, Jobs and Fair Work has received a meeting request from Ken Cronin, Chief Executive UKOOG, who wishes to discuss the Scottish Government's policy for onshore oil and gas exploration and extraction. The Minister for Business, Innovation and Energy has received a request for an introductory meeting with FoE Scotland Director, [redacted], to discuss UOG and some wider energy matters.

A balanced and open approach to stakeholder engagement on UOG

5. We propose the following steps to demonstrate our continuing commitment to transparent and balanced engagement with our stakeholders:

- * in addition to coordinating meetings with FoE and UKOOG, officials will approach the Broad Alliance, SE LINK and COSLA to discuss meeting with the Minister(s), and then make appropriate meeting arrangements;
- * the meetings will allow the Minister(s) and stakeholders to discuss progress toward the consultation. Officials will agree a short, standard agenda for each meeting with stakeholders and confirm any AOB items.
- * officials will work with private office to secure dates in close succession in July/August for all meetings, diary commitments permitting.

6. At their last meeting with Ministers, the Broad Alliance requested a formal minute. A short record of the meeting was prepared by officials and shared with the Broad Alliance. Officials will discuss and agree preferences for any minutes with each stakeholder.

7. We anticipate that there will be further opportunities for Ministers to meet with stakeholders once the findings of the research projects on UOG have been published, and that stakeholders will be particularly interested in the findings of the Public Health Impact Assessment.

Ministerial attendance

8. We note that UKOOG have approached the Cabinet Secretary for Economy, Jobs and Fair Work for a meeting, whereas FoE Scotland have approached the Minister for Business, Innovation and Energy. Officials also note that Ministers representing the Environment and Planning portfolios participated in the meetings with stakeholders last year. Ministers may wish to adopt a similar approach for this round of meetings or, alternatively, they may wish to adopt a more routine approach with the Energy Minister leading each of the engagements discussed at paragraph 5.

Communications and handling

9. We don't propose any specific publicity for these stakeholder meetings; however, holding lines will be prepared for clearance by SpAds and Ministers should these meetings attract press attention.

Recommendations

Ministers are asked to note the content of this submission and confirm:

- * that they are content with the proposals set out at paragraph 5;
- * ministerial attendance at the meetings, as discussed at paragraph 8.

[redacted]
Onshore Oil and Gas, Ext: [redacted]

[redacted] | Onshore Oil and Gas | The Scottish Government | Victoria Quay |
Edinburgh | EH6 6QQ | Tel:
[redacted] | Mob: [redacted]

[redacted]
20 Sept 2016

To: Minister for Business, Innovation and Energy

UNCONVENTIONAL OIL AND GAS: STATUTORY AND OTHER ASSESSMENTS

Purpose: to advise on the timing for undertaking statutory and other assessments to help formulate future policies on unconventional oil and gas (UOG).

Background

1. The Scottish Government is taking a cautious and evidence-led approach to UOG. This approach will be informed by a set of independent research projects and public consultation opportunities.
2. On 13 July Ministers confirmed that officials should make preparations for launching a public consultation in winter 2016/17. Details of these preparations were set out in a submission from [redacted] dated 29/06/16 (*UOG: consultation preparations*). This advice set out that the consultation will:
 - present impartial and factual information on UOG;
 - give the public, local communities and stakeholders the opportunity to present views on the issues that matter to them;
 - provide Ministers with a balanced representation of public and stakeholder views on UOG.
3. A set of impact assessments typically accompany the development of policy and/or consultations on policy options. These include a Strategic Environmental Assessment (SEA), which is a statutory assessment that is required before a final policy that could impact on the environment can be put into practice; a Business and Regulatory Impact Assessment (BRIA); and an Equality Impact Assessment (EQIA). Further details of these assessments are provided in **Annex A**.
4. No public statements have been made on the scope or timing of statutory assessments for UOG. The advice presented in this minute has been discussed with relevant policy teams and the teams responsible for statutory assessment policies.

Advice on undertaking statutory and other assessments for UOG

5. In early 2015, officials in Planning and Architecture Division provided advice on undertaking a SEA on unconventional oil and gas. This advice indicated that we anticipated that the development of any future policy on UOG would need to be accompanied by a SEA under the terms of the Environmental Assessment (Scotland) Act 2005. **The preparation of a SEA encompasses a full public consultation on an Environmental Report.** At the time Ministers indicated that any such assessment should be fully integrated with the wider programme of evidence-gathering.

6. Officials have considered the requirements for undertaking a SEA, alongside the requirements for undertaking a BRIA and EQIA to identify the most appropriate time to begin the process of preparing such assessments to help formulate future UOG policy.

7. The consultation described at paragraph 2 aims to present practical evidence and give the public, businesses, and organisations across Scotland an early opportunity to express their views on this evidence. It is the view of officials that **it would not be meaningful to progress the impact assessments (SEA, BRIA, EQIA)** in the absence of specific policy proposals or options for stakeholders and the public to consider.

8. The evidence obtained through this consultation will inform the Scottish Government's position and views on UOG, which may lead to future consideration of specific policy options. **As policy options or a proposed policy position emerges, further consideration would need to be given to the assessment outlined at paragraph 3, including all related public consultation requirements, prior to adopting a final policy position.**

9. In preparing the draft consultation document on UOG, officials will **consider the inclusion of a question that could inform the development of any future assessments.** This approach would help ensure that the requirement for early and effective engagement that accompanies the preparation of these assessments is fulfilled.

Recommendation

Ministers are asked to note the content of this minute and to confirm:

- **that you agree with the view of officials that it would not be meaningful to undertake a Strategic Environmental Assessment, Business and Regulatory Assessment or Equality Impact Assessment in advance of the forthcoming public consultation on UOG.**

[redacted],
Head of Onshore Oil and Gas
Ext: [redacted]

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
First Minister					X
Deputy First Minister					X
Cabinet Secretary for Health and Sport			X		
Cabinet Secretary for Economy, Jobs and Fair Work			X		
Cabinet Secretary for Environment, Climate Change and Land Reform			X		
Cabinet Secretary for Communities, Social Security and Equalities			X		
Cabinet Secretary for Rural Affairs and Connectivity			X		
Minister for Public Health and Sport			X		
Minister for Local Government and Housing			X		

Permanent Secretary
DG Economy
DG Communities
Chief Scientific Advisor
Chief Scientific Advisor Rural Affairs, Food and the Environment
Chris Stark
Mary McAllan
Kenneth Hogg
Bridget Campbell
David Ritchie
John Ireland
Simon Fuller
John McNairney
George Burgess
[redacted]
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[redacted]
[redacted]
[redacted]
[redacted]
[redacted]
Kate Higgins
David Miller
Liz Lloyd
[redacted]
[redacted]
Jeanette Campbell
Comms Economy

Summary: Statutory assessments that accompany policy development

Strategic Environmental Assessment (SEA)

In Scotland, public bodies and some private companies operating in a public character are required to assess, consult and monitor the likely significant impacts of their plans, programmes and strategies on the environment. This process is known as Strategic Environmental Assessment (SEA). The process for undertaking a SEA is set out in the Environmental Assessment (Scotland) Act 2005.

SEA is a key component of sustainable development, establishing important methods for protecting the environment and extending opportunities for public participation in decision making. SEA achieves this by:

- systematically assessing and monitoring the significant environmental effects of public sector strategies, plans and programmes;
- ensuring that expertise and views are sought at various points in the process from Scottish Natural Heritage, SEPA, Historic Environment Scotland, and the public;
- requiring a public statement as to how opinions have been taken into account.

The preparation of a SEA can involve a number of stages, including screening, which is used to determine the magnitude of environmental effects and the requirement for a SEA. Where a full SEA is required, scoping is undertaken to establish how the assessment could best be undertaken and what aspects of environment are to be covered. This is followed by full public consultation on an Environmental Report alongside policy or plan proposals. The Environmental Report sets out the significant environmental effects of a proposed policy and reasonable alternatives to it.

Business and Regulatory Impact Assessment (BRIA)

The Scottish Government is committed to consulting with all parties potentially affected by proposals for new regulation, or where any regulation is being changed significantly.

The BRIA helps policymakers use available evidence to find proposals that best achieve the policy objectives while minimising costs and burdens. Through consultation and engagement with business, the costs and benefits of the proposed legislation can be analysed. It also ensures that any impact on business, particularly small enterprises, is fully considered before regulations are made.

BRIAs should be completed for policy changes and legislation which may have an impact on business or the third sector. They apply to primary or secondary legislation being introduced to the Scottish Parliament, as well as codes of practice or guidance. They should be undertaken when considering both traditional regulations and alternatives such as proposals which encourage self-regulation or opt-in regulation and voluntary guidance. This helps to ensure

through consultation and engagement with business that the costs and benefits are fully analysed and understood. If a BRIA is not to be completed, this must be agreed with Ministers.

The preparation of a BRIA is a staged process incorporating: policy definition; rationale for interventions; testing of policy options ahead of public consultation; interviews with businesses, consultation on partial and final BRIAs; and consideration of costs and benefits of policy options.

Equality Impact Assessment (EQIA)

The Equality Act 2010 (Specific Duties) (Scotland) Regulations 2012 place a statutory duty on the Scottish Government to assess and review policies and practices against the needs mentioned in the public sector equality duty i.e. to eliminate discrimination, advance equality of opportunity and foster good relations.

An EQIA is required if a policy proposal affects people in any way. Its purpose is to help policymakers examine how their policy may impact on people due to age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, gender, and sexual orientation. These are known as “protected characteristics”.

The preparation of an EQIA involves four stages:

Scoping stage: Policymakers undertake a scoping exercise to determine whether an EQIA is required by gathering equality data via sources including SG’s Equality Evidence Finder, and collaborating with colleagues whose policies may interact with the policy in question.

Evidence-gathering stage: This builds on the framing exercise and initial assessment via data-gathering and consultation. How the evidence is gathered depends on the nature of the policy, and available evidence and resources. Some policy areas require more thorough equality analysis; others are better served by a “lighter touch” approach.

Impact assessment stage: An impact assessment is undertaken to identify mitigating actions. An impact is defined as a deliberate or accidental effect or significant change in people’s lives brought about by a policy decision. Both the intended and unintended impacts and consequences of the policy must be considered.

Explanation stage: Policymakers describe how the findings from the equality impact assessment have helped shape the policy and fed into the policymaking process. Any negative impacts and mitigating actions will be clearly identified; positive impacts are also highlighted.

[redacted]
01 November 2016

First Minister
Minister for Business, Innovation and Energy

UNCONVENTIONAL OIL AND GAS: REGULATORY WORKSHOP

Purpose

To provide an update on the unconventional oil and gas (UOG) regulatory workshop that took place on 13 October. Also to recommend that the outputs are uploaded to the SG website at the same time as the UOG research reports are published on 08 November.

Priority: Immediate

Background

1. The statement that accompanied the announcement of the UOG moratorium on 28 January 2015 stated that the Scottish Government would: *...conduct further work into strengthening planning guidance; and look at further tightening of environmental regulation.*
2. The announcement of the evidence-gathering programme on 08 October 2015 indicated that stakeholder workshop(s) would be undertaken to support this work, and that a summary of the workshop would be published in Autumn 2016 before the consultation.
3. To fulfil the commitment made and support the cautious, evidence-led approach towards UOG, officials designed a one-day event for the key regulators, which took place on 13 October.
4. **Without prejudicing the outcomes of the UOG consultation and moratorium, the outputs from the workshop provide a valuable and objective overview of (i) the current regulatory framework; (ii) the regulatory issues identified by the research commissioned by SG; and (iii) a view from the regulators on how the regulatory framework could be explored further should that be required in the future.**

Regulatory Workshop

5. The Independent Expert Scientific Panel report (2014) concluded that: "The regulatory framework is largely in place to control the potential environmental impacts of the production of unconventional oil and gas in Scotland, although there may be gaps to address."
6. The key gaps identified by the Expert Scientific Panel, which relate to greenhouse gas emissions and air quality, and decommissioning, have been explored in more detail by the research reports commissioned in 2016. The research reports also make a range of observations about the regulatory framework and the potential for it to be improved on a broader range of issues.
7. In light of this, the purpose of the workshop was, without prejudice to the eventual outcome of the Government's consultation and moratorium process, to:

- a. consolidate the range of examinations and considerations of the regulatory framework to date;
- b. consider the current regulatory framework in light of issues raised by the independent research, and how to approach improvements should it become necessary;
- c. discuss how to inform the public consultation.

8. The workshop was attended by all the main UOG regulators, namely Scottish Environment Protection Agency, Scottish Natural Heritage, the Health and Safety Executive, the Coal Authority, Heads of Planning Scotland, and Environmental Health Officers. Health Protection Scotland and the British Geological Survey also attended to provide technical input.

9. Delegates agreed that:

- a. a paper drafted by officials, “Overview of the Current Regulatory Framework”, provides a helpful factual summary of the regulations that are currently in place;
- b. the research reports appropriately capture the regulatory issues, noting that stakeholders have raised some additional issues.

10. In the event that Scottish Ministers wish the regulatory framework for UOG to be further explored, the delegates concluded that the observations made by the independent researchers form an appropriate basis for organising work to examine how regulation could be strengthened if this was required. The delegates also concluded that an effective approach to advancing such work, in the event that it is required, would be the formation of an Expert Regulatory Group, chaired by the Scottish Government with representation from the organisations present at the workshop.

11. There are two outputs from the workshop:

- a. **Overview of the Current Regulatory Framework** - a 31 page factual and objective summary of the regulations as they currently stand. Further detail is given in **Annex A**.
- b. **Note of the workshop** - a brief, high-level summary of workshop, given in **Annex B**. The note of the workshop also encompasses an objective summary of the regulatory issues and considerations raised by the SG research projects, which is presented in the form of excerpts from the relevant research projects.

Recommendation

12. Officials, in consultation with SpAds, recommend uploading both outputs to the Scottish Government website, at the same time as the research on unconventional oil and gas reports are published on 08 November. This will meet our commitment to make a summary of a regulatory workshop available in Autumn 2016.

13. Advice regarding the publication of the research reports and associated communications and handling is provided in the accompanying submission from Stuart Greig (01 Nov 16).

[redacted]

Ext: [redacted]

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Deputy First Minister					X
Cabinet Secretary for Economy, Jobs and Fair Work			X		
Cabinet Secretary for Health and Sport			X		
Cabinet Secretary for Environment, Climate Change and Land Reform			X		
Cabinet Secretary for Communities, Social Security and Equalities			X		
Cabinet Secretary for Rural Economy and Connectivity			X		
Minister for Public Health and Sport			X		
Minister for Local Government and Housing			X		

Permanent Secretary
DG Economy
DG Communities
Chief Scientific Advisor
Chief Scientific Advisor for Rural Affairs, Food and the Environment
Chris Stark
Kenneth Hogg
Bridget Campbell
David Ritchie
John Ireland
John McNairney
[redacted]
Simon Fuller
[redacted]
Gareth Brown
[redacted]
[redacted]
[redacted]
John McFarlane
Kate Higgins
David Miller
Liz Lloyd
[redacted]
[redacted]
[redacted]
Jeanette Campbell
Comms Economy
[redacted]
[redacted]

OUTLINE OF DOCUMENT, “OVERVIEW OF REGULATORY FRAMEWORK”**Background and Purpose**

This section explains that:

- The paper summarises the overarching framework of regulation that currently exists to minimise hazards, and mitigate the risks to public health and the environment across the lifetime of a UOG project.
- The paper does not describe detailed processes and procedures for each stage of regulation;
- The Scottish Government has a moratorium on UOG and is not proposing to make any changes to regulation at this time. The Scottish Government’s approach to UOG will be informed by the evidence that is being gathered and the public consultation.

Section 1: Overview of the regulatory framework

- Scottish Government’s five principles of good regulation
- Brief outline of the responsibilities of the key regulatory bodies
- Explanation of the current onshore petroleum licensing framework and the interactions with Strategic Environmental Assessments (SEA) and Habitats Regulations Appraisal
- Overview of the role of planning, including Scottish Planning Policy and Environmental Impact Assessments
- Public participation in decision making, including public consultation in the SEA process and opportunities for everyone to engage in the development decisions which affect them throughout the planning system.

Section 2: Activities, Hazards and Controls

This section is the main body of the paper, outlining the full range of regulations (and which regulatory bodies are responsible for them), in relation to the following issues:

- Air and Climate
- Water
- Soil
- Naturally Occurring Radioactive Materials
- Light, Noise and Odour
- Landscape
- Biodiversity, Flora and Fauna
- Seismic Activity

Links to all legislation referenced.

NOTE OF WORKSHOP

The Scottish Government is taking a cautious and evidence-led approach to unconventional oil and gas (UOG). On 28 January 2015, the Scottish Government announced a moratorium on UOG so that further evidence could be gathered before holding a full public consultation.

On 08 October 2015 the Scottish Government published details of a comprehensive programme of research and the timetable for the consultation on UOG.

This workshop on regulation is part of this programme of evidence-gathering.

The evidence considered at the workshop included the review of UOG carried out by the Independent Expert Scientific Panel, as well as the research projects commissioned in 2016, namely:

- Health Impact Assessment (Health Protection Scotland)
- Transport - Understanding and mitigating community level impacts (Ricardo).
- Decommissioning, site restoration and aftercare – obligations and treatment of financial liabilities (AECOM)
- Understanding and monitoring induced seismic activity (the British Geological Survey)
- Economic impacts (KPMG)
- Climate change impacts – (UK Committee on Climate Change)

The Independent Expert Scientific Panel report (2014) set out a comprehensive analysis of regulatory issues, and concluded that: *The regulatory framework is largely in place to control the potential environmental impacts of the production of unconventional oil and gas in Scotland, although there may be gaps to address.*

The purpose of the workshop, without prejudice to the eventual outcome of the Government's consultation and moratorium process, was to:

- consolidate the range of examinations and considerations of the regulatory framework to date;
- consider the current regulatory framework in light of issues raised by the independent research, and how to approach improvements should it become necessary;
- discuss how to inform the public consultation.

The following organisations were represented:

- Scottish Government Energy and Climate Change, Environment and Forestry, and Local Government and Communities Directorates
- Scottish Environment Protection Agency
- Health and Safety Executive
- Health Protection Scotland
- British Geological Survey
- Scottish Natural Heritage
- Coal Authority
- Heads of Planning Scotland
- Local Authority Environmental Health Officers

For reference, a copy of the meeting agenda is attached at **Annex A**.

The draft paper “Overview of the current regulatory framework” was accepted as a comprehensive and correct description of the regulatory framework as it currently exists, subject to a small number of technical amendments.

Following presentations on the findings of the research projects and the Health Impact Assessment, it was agreed that the regulatory issues relating to UOG had been appropriately captured (**Annex B [not included in submission]**), and that stakeholders have raised issues relating to protection of the water environment and wider wildlife interests. In discussion, the importance of the following points was emphasised:

- Long-term monitoring, record keeping and liability (noting that the research found the risk of an escape of fluids from a decommissioned well to be low);
- Long-term nature of UOG developments with early stages being exploratory;
- transparency and clarity for communities about the role of regulators and the protection that regulatory controls provide;
- community engagement;
- co-ordination and close working between the regulatory bodies;
- resourcing for any increased regulatory role.

In the event that Scottish Ministers wish the regulatory framework for UOG to be further explored, it was agreed that:

- the observations made by the independent researchers and noted at this workshop would form an appropriate basis for organising work to examine how regulation could be strengthened if that was to be required;
- that an effective approach, in the event that it is required, to advancing such work would be the formation of an Expert Regulatory Group, chaired by the Scottish Government with representation from the organisations present at the workshop.

The group would require access to technical and legal resource, would make use of existing professional networks and would consider community impacts and involvement.

Scottish Government
October 2016

To: First Minister
Minister for Business, Innovation and Energy

UNCONVENTIONAL OIL AND GAS (UOG): UNCONVENTIONAL OIL AND GAS RESEARCH PUBLICATION

Purpose: To summarise the findings of the research into unconventional oil and gas (UOG) and to outline the communications and handling plan for the publication of the final reports. A publication date of 08 November has been identified.

Priority: Immediate

Background

1. The Scottish Government is taking a cautious and evidence-led approach to unconventional oil and gas (UOG), which will be supported by a full public consultation. On 08 Oct 2015, the Scottish Government published details of a comprehensive research programme and consultation timetable.

1.	Commission research	January/February
2.	Publish final research reports	2016
		Summer 2016
3.	Publish report of regulatory workshop	Autumn 2016
4.	Public Consultation (4 month)	Winter 2016/17
5.	Consultation Analysis	Spring 2017

6. In view of the importance of discussing and understanding UOG in the context of wider energy and climate change matters, officials are making preparation for publishing the UOG consultation in late January 2017, in coordination with the consultation on the draft Energy Strategy, and Climate Change Plan.

Overview of research

7. The following research projects were commissioned in 2016 following Scottish Government procurement guidance:

1. Economic impacts (KPMG)
2. Climate Change Impacts – (UK Committee on Climate Change)
3. Decommissioning, site restoration and aftercare – obligations and treatment of financial liabilities (AECOM)
4. Understanding and monitoring induced seismic activity (the British Geological Survey)
5. Transport - Understanding and mitigating community level impacts (Ricardo).

6. Health Protection Scotland was asked to undertake an independent Health Impact Assessment of UOG. The assessment has undergone extensive peer review, including by reviewers nominated by stakeholders representing community, environmental and industry interests.

7. The independent consultants engaged with the main stakeholder groups representing community, industry, environment and local government interests at the outset of the projects to inform the scope and structure of the research. Health Protection Scotland also held stakeholder workshops (NGOs, community groups, health professionals, industry) to inform their assessment.

8. The final research reports have now been submitted to the Scottish Government. Summaries of the research findings are provided at **Annex A**.

9. The statement that accompanied the announcement of the UOG moratorium on 28 January 2015 stated that the Scottish Government would: *...conduct further work into strengthening planning guidance; and look at further tightening of environmental regulation*. The announcement of the evidence-gathering programme on 08 October 2015 indicated that stakeholder workshops would be undertaken to support this work, and that a summary of the workshops would be published in autumn 2016 before the consultation.

10. On 13 October 2016, officials hosted a workshop with the main regulators. The purpose of the workshop, without prejudice to the eventual outcome of the Government's review and moratorium process, was to:

11. consolidate the range of examinations and considerations of the regulatory framework to date;
12. consider the current regulatory framework in light of issues raised by the independent research, and how to approach improvements should it become necessary;
13. discuss how to inform the public consultation.

14. A summary of this workshop will be available for uploading to the SG website at the same time the research is published. Details of the workshop are provided in the accompanying submission from [redacted] (01 Nov 16).

Communications and handling

15. A communication and handling plan has been prepared to support the publication of the independent research projects. The proposed plan has been discussed with Comms and SpAds and is provided at **Annex B**.

16. The main elements are a statement to Parliament on 08 November and an accompanying news release. A draft of the news release will be provided for consideration in advance of the parliamentary statement.

17. The statement will outline the Scottish Government's commitment to obtaining, publishing and scrutinising evidence on this important issue. The statement will also provide an opportunity to outline that the UOG public consultation will be coordinated with the launch of the consultation on the draft Energy Strategy and the Climate Change Plan, which is anticipated to be early in 2017. An outline of the parliamentary statement is provided at **Annex C**.

18. Under the proposed plan, the research projects would be published on the SG website to coincide with the statement to Parliament on the afternoon of 08 November. Hard copies of the executive summaries of the reports will be made available to MSPs to coincide with the statement.

19. An extensive Q&A is being prepared. Example Q&A on likely lines of questioning is provided at **Annex E**.

Recommendation

You are asked to note the content of this submission and confirm you are content with the:

1. **proposed handling and communications plan;**
2. **outline for the parliamentary statement.**

[redacted] Ext: [redacted]

Copy List:			For Information		
Deputy First Minister Cabinet Secretary for Economy, Jobs and Fair Work Cabinet Secretary for Health and Sport Cabinet Secretary for Environment, Climate Change and Land Reform Cabinet Secretary for Communities, Social Security and Equalities Cabinet Secretary for Rural Economy and Connectivity Minister for Public Health and Sport Minister for Local Government and Housing					

Permanent Secretary
DG Economy
DG Communities
Chief Scientific Advisor
Chief Scientific Advisor for Rural Affairs, Food and the Environment
Chris Stark
Kenneth Hogg
Bridget Campbell
David Ritchie
John Ireland
John McNairney
[redacted]
Simon Fuller
[redacted]
Gareth Brown
[redacted]
[redacted]
[redacted]
John McFarlane
Kate Higgins
David Miller

Liz Lloyd
[redacted]
[redacted]
[redacted]
Jeanette Campbell
Comms Economy
[redacted]
[redacted]

SUMMARY OF RESEARCH FINDINGS:

Economic impacts (KPMG)

Research Aim: Understand the potential aggregate impact of unconventional oil and gas development under a range of scenarios on the Scottish economy

1. It is estimated that total gas production would be a cumulative 947 bcf (billion cubic feet) in the central scenario up to 2062, equivalent to around 5.5 years of Scottish consumption at current levels. At its peak in 2035, annual **UOG production would be equivalent of around 2% of current UK Continental shelf offshore production** of hydrocarbons in the central scenario, rising to around 7% under a high scenario, and a negligible amount under the low scenario.
2. In the central scenario the cumulative value of UOG to the economy over the period to 2062 is estimated at **£1.2 billion** (High £4.6 bn, Low £0.1 bn). This is approximately equivalent to £30 million per annum of GDP – equivalent to **0.1% of Scottish GDP**. To put this into context, offshore oil and gas production in Scotland was worth £9.9 billion in 2015, or 6.5% of Scottish GDP.
3. In the central scenario, it is estimated the Scottish industry would support **1,400 jobs** in Scotland at its peak (High 3,100, Low 470). This includes indirect jobs in the supply chain and induced jobs.
4. Potential UOG production in Scotland's Midland Valley is restricted by the relatively high level of urbanisation, water bodies, and designated areas. KPMG assumes a total of between 10 and 31 UOG pads with 10 to 30 wells per pad is the likely scale of development in prospective UOG areas.
5. If oil and gas prices remain at current levels it is unlikely that UOG production would be economic in Scotland.

Research Aim: Consider the specific impacts of the development of unconventional oil and gas in Scotland and in particular identify the key sectors and groups likely to be affected by each scenario

6. In quantifying the industry's potential economic impact, **the report does not include the potential benefits it could have for the Grangemouth plant** if products were used as a feedstock. Nor does it speculate on the impact that not proceeding with UOG production could have on the facility's long term future.
7. Instead, the report notes **Grangemouth has been unable to operate at full capacity due to lack of feedstock**, and a number of petrochemical companies could see a positive impact on their supply chain if UOG is developed as they would avoid the costs of importing/transporting their primary input.
8. The report highlights a number of other factors which should be considered when looking at the economic impact of UOG including the impact on local house prices, road use, agriculture, visual amenity, environmental costs and health costs.

Research Aim: Consider the potential nature and extent of any community benefit payments

9. In the central scenario the cumulative value of community benefit payments over the period to 2062 is estimated at £217 million (High £663m, Low £63m). This is based on an assumed contribution of 4% of revenues to local communities.

Climate Change (UK Committee on Climate Change)

Research Aim: Examine the impacts on territorial carbon emissions of unconventional oil and gas activities in Scotland in line with the economic scenarios

10. The potential impact on Scottish climate change targets would be highly uncertain.
11. Exploiting UOG on a significant scale is only compatible with Scotland's climate change targets if
 1. Emissions are limited through **tight regulation**
 2. Scottish UOG production **displaces imports**, rather than increasing domestic consumption,
 3. Emissions from production of UOG are **offset through reductions in emissions elsewhere** in the Scottish economy.
12. Central estimates are for emissions from UOG to reach 2.6 Mt/year CO₂ equivalents in 2035 for unregulated production under the KPMG High Production scenario falling to 1.6 Mt under the CCC's 'minimum necessary regulation' scenario, falling to 1.1 Mt with fuller technical mitigation.
13. To put these figures into context, they **would account for roughly 11%, 7% and 5% respectively of the Scottish Government's carbon target for 2035** and would require an increase in carbon mitigation elsewhere in the economy.
14. If Scottish UOG production simply offsets other global production of gas, then there will not be increase in **global emissions**. Emissions which would have previously occurred overseas will now take place in Scotland.

Research Aim: Consider how the impacts might vary over time.

15. The emissions relating to production grow over time, broadly in line with the growth in hydrocarbons produced, peaking slightly after 2035 under each scenario.

Decommissioning, site restoration and aftercare (AECOM)

Research Aim: better understand the steps that can be taken to ensure decommissioning, site restoration and aftercare can be undertaken in a way that ensures robust regulation and minimises impacts on communities and the environment.

16. The risk of leakage from abandoned UOG wells is likely to be low, and international experience suggests that long-term well integrity can be achieved by implementing best practice during well construction and abandonment operations under a strong regulatory regime.
17. There is a risk that a small proportion of wells may fail. Leaks may occur from these wells if there is a source of oil or gas under pressure (generally not the case). Therefore it may be appropriate to monitor for leakage from decommissioned UOG wells for as long as SEPA consider necessary.
18. Scotland has a mature framework for the regulation and control of UOG development which is at least the equal of those examined in other countries or other industries. With appropriate regulatory oversight and monitoring, the framework is sufficient to manage risks of well leakage consistent with the aim of providing suitable protection for communities and the environment.

Research Aim: to identify and explore different models of financial guarantee that provide robust security against liabilities, and improve understanding of associated costs.

19. It is essential that UOG operators have sufficient funds available to cover liabilities associated with the abandonment and decommissioning of wells.
20. Taking lessons from open cast coal mining there are financial mechanisms available which can minimise the risk of operators failing to honour their commitment to decommissioning.

Understanding and monitoring induced seismic activity (BGS)

Research Aim: better understand the levels of induced seismic activity that could be associated with unconventional oil and gas activities in Scotland.

21. Hydraulic fracturing is generally accompanied by microseismicity, the magnitudes of these events are usually less than 2.0 making them too small to be felt by people.
22. The process of hydraulic fracturing as presently implemented poses **a low risk of inducing felt, damaging or destructive earthquakes**.
23. In western Canada, increases in annual earthquake rates over the last ten years correspond to increases in the number of hydraulically fractured wells, suggesting that **hydraulic fracturing has induced earthquakes**. However, the probability of earthquakes that can be felt appears to be small given the large number of hydraulic fractured wells (>12,000. In comparison, the KPMG analysis envisages 300 wells in Scotland under its central scenario, and 930 in the high scenario).

Research Aim: better understand the robust regulatory and non-regulatory actions that can be taken to mitigate any noticeable effects on communities.

24. Recent increases in earthquake rates and significant earthquakes in many areas of the United States where fracking is undertaken have been linked to the **disposal of wastewater by injection into deep wells rather than hydraulic fracturing itself**. This practice is **not something that we would expect to be permitted** under the current Scottish regulatory regime.
25. In the UK, following induced seismicity near Blackpool in 2011, the UK Government put steps in place to mitigate risks. This includes a traffic light threshold, with the limit of 0.5ML for cessation of operations. An event of this magnitude is unlikely to be felt, does not pose any seismic hazard, and would only be detected by sensitive monitoring equipment in the vicinity of the epicentre.
26. A dense network of monitoring stations is essential for reliable detection and discrimination of induced seismic events, and to allay public concern.

Transport- Understanding and mitigating community level impacts (Ricardo)

Research Aim: Explore the scope and scale of increased traffic volumes in community localities around site(s) during the four stages of unconventional oil and gas development (exploration, appraisal, production and decommissioning & restoration).

27. The additional traffic movements associated with UOG resources are unlikely to be significant or detectable at a regional (i.e. local authority) or national scale, in view of the much greater numbers of traffic movements resulting from other activities.
28. Each well pad could require traffic movements to be sustained at around **190 per week for a period of approximately 2 years** during the development phase. For context, a warehouse / distribution centre may be expected to generate approximately 5,000 two-way HGV movements per week. A wind farm construction can require 800-1,000 two-way movements at its peak.
29. The main factor affecting traffic flows is the requirement for transportation of water. If that can be avoided (e.g. by use of pipelines or re-using wastewater) the impacts can be significantly reduced.

Research Aim: Explore the range of potential impacts (and duration of impacts) of these traffic volumes, and robust regulatory and other options that could mitigate impacts for communities.

30. Any increase in vehicle movements could result in an increase in noise, vehicle emissions, road damage or traffic accident risks, which may be identified as negligible, or may require mitigation.
31. Provided the planning and Environment Impact Assessment system is properly implemented, any significant impacts would be avoided through the use of appropriate mitigation measures.
32. However, even with mitigation and guidance in place, **local communities would experience an increase in traffic numbers, potentially for an extended period of a number of years.**

Public Health Impact Assessment (Health Protection Scotland)

Research Question: What are the potential risks to health associated with exploration for and exploitation of shale oil and gas and coal bed methane?

33. The overall conclusion of this HIA is that the evidence considered was 'inadequate' as a basis to determine whether development of shale oil and gas or coal bed methane would pose a risk to public health. However, individual conclusions were drawn on particular types of UOG-related hazard and specific types of health outcome.
34. There was 'sufficient' evidence to determine that a number of airborne and waterborne environmental hazards would be likely to occur as a result of UOG operations. Specific UOG processes of hydraulic fracturing and to a greater extent, the disposal of UOG waste water into deep injection wells, were found to be associated with increased seismicity of variable intensity, much of it minor. However, there was 'inadequate' evidence that seismicity linked to UOG activity was associated with any actual physical risk to health.
35. There was 'sufficient' evidence that silica, a component of fluids used in fracking processes, occurred at levels that could pose a risk to UOG workers' health. There was also evidence that other UOG hazards occurred at levels that could pose a risk to the health of nearby residents (this evidence was classed as 'limited').
36. There was 'inadequate' evidence to suggest that other UOG-associated chemical hazards or nuisances such as noise, light or odours, occurred at levels that could pose a risk to physical health.

Research Question: What are the wider health implications of deploying the technology necessary for the exploration and exploitation of shale oil and gas and coal bed methane?

37. The evidence reviewed on the wider implications of UOG on health was primarily qualitative. This identified ambivalent views in the studied communities regarding the perceived positive and negative impacts of UOG development. It focused on self-reported concerns, anxieties and stress and possible economic benefits.

Research Question: What options could there be to mitigate any potential adverse impacts that are identified?

38. HPS identified areas where the current regulatory framework for UOG development could be strengthened, including in respect of planning and environmental regulation.
39. The evidence reviewed, while lacking in quantity, quality and consistency, would justify adopting a precautionary approach if UOG development is permitted in Scotland in the future. A precautionary approach should be proportionate to the scale of the hazards and potential health impacts, both adverse and beneficial.
40. Within environmental public health, adopting a precautionary approach can take a number of forms, and it is not unusual for a precautionary approach to allow the development of a

technology, where it is considered that realistic, practical opportunities can be identified to control potentially hazardous exposures.

41. The report summarises the approaches taken to UOG by other countries/governments, ranging from bans to supporting industry, concluding that a precautionary approach in Scotland could be based on adopting a range of mitigation measures involving operational best practice, regulatory frameworks and community engagement.

DRAFT

RESEARCH REPORTS: COMMUNICATION AND HANDLING PLAN

The communications and handling plan is designed to allow swift publication of the research reports in conjunction with a clear and unambiguous statement on the purpose and timetable for the public consultation on unconventional oil and gas.

08 November	
Officials liaise with stakeholders	a.m. SpAds and Policy Officials will co-ordinate briefing of key stakeholders including Friends of the Earth, Scottish Environment Link, The Broad Alliance, UKOOG, and COSLA.
Publication of reports	<p>Arrangements for the provision of documents in parliament before the statement are being considered by the Minister for Parliamentary Business.</p> <p>14:20 hours – Research reports to be published on the Scottish Government publications web page. The Health Impact Assessment will be published on the Health Protection Scotland website and the SG website will carry a link to it.</p>
News Release	<p>14:20 - Ministerial news release welcoming the publication of the reports.</p> <p>The news release is an opportunity to:</p> <ol style="list-style-type: none"> 1. set the research as part of our “evidence-led” approach to UOG; 2. set out that the purpose of the public consultation is to initiate a national discussion informed by impartial information to provide evidence of public views; 3. announce that the public consultation will run concurrently with the consultation on the draft Energy Strategy early in 2017. 4. indicate that the Scottish parliament will be given an opportunity to vote on the future of UOG in Scotland once the consultation closes and the results have been analysed. <p>1.</p> <p>A set of short, factual paragraphs on the findings of each project have been prepared by the research contractors. This is available for inclusion in the background note.</p>
Parliamentary Statement	14:20 – 14:50 hours - The Minister will inform members of the publication of the research and confirm that the public consultation on UOG will

	<p>run concurrently with the consultation on the draft Energy Strategy early in the New Year.</p> <p>Hard copies of the executive summaries of the reports to be made available to MSPs in the Chamber via office of Minister for Parliamentary Business shortly ahead of the parliamentary statement. (Electronic copies of the full reports laid in SPICe library to coincide with publication.)</p> <p>Statement checked against delivery and issued online once Mr Wheelhouse has sat down.</p> <p>Link to statement tweeted.</p>
Ministerial Media Activity	Mr Wheelhouse to be available for broadcast media bids following the statement. (Comms will record video statement which will be posted on Facebook and Twitter).
Update SG website	Text of Onshore Oil and Gas SG webpage to be updated to reflect publication of the research reports. This will carry links to the research documents, including a summary of the regulatory workshop outputs.
Stakeholder communication	Officials to update key stakeholder groups with email-shot containing links to research reports and Ministerial news release.

OUTLINE FOR PARLIAMENTARY STATEMENT

1. Outline the SG commitment to obtaining, sharing and using evidence on this important issue.
2. Reference the recent position taken on Underground Coal Gasification as a clear example of the SG's commitment to scrutinising the evidence.
3. Discuss the significance of the research projects in furthering our knowledge of the issues, and reiterate the links to the findings and gaps in knowledge identified by the Independent Expert Scientific Panel.
4. Summarise the steps taken to develop an impartial and robust evidence-base, including the opportunities created for stakeholders to participate in the research.
5. Outline the scope and purpose of the projects, with reference to particular themes in the research that validate the SG's research-led approach and significance of the research.
6. Reiterate the importance of giving the public and stakeholders time to consider these findings before we launch our consultation.
7. Describe that a workshop with the regulators took place and a summary of the workshop has been published as part of the evidence gathering process.
8. Set out the timetable and purpose of the consultation, which is to present evidence, encourage discourse and gather evidence on public and stakeholder views – not an opinion poll.
9. Signal the importance of not considering UOG issues in isolation from wider energy matters, which is why the consultations will be closely coordinated.
10. State that the Scottish parliament will be given an opportunity to vote on the future of UOG in Scotland once the consultation closes and the results have been analysed.

DRAFT UOG QUESTION AND ANSWER**Now the research is available will the Scottish Government consider lifting the moratorium / implement an outright ban on UOG?**

Our consultation will give everyone who has an interest in this issue an opportunity to express their view. This is what the public and stakeholders expect, and this is what we are delivering.

The Scottish Government will come to a considered judgment on unconventional oil and gas once we have completed our consultation and listened to views from across Scotland. Given the significance of the issue, that is the right and proper way to proceed.

Are these reports conclusive?

These studies are an important contribution to the examination of the potential impacts of unconventional oil and gas in Scotland and underline the Scottish Government's policy of taking a precautionary, robust and evidence-based approach to UOG.

We will set out the decision of this Government on the future development of unconventional oil and gas development in Scotland only after having considered the evidence and the outputs of the consultation.

What assurance can you provide that all the research reports will be considered equally? Will weight be given to economic benefits over environmental impacts?

I think we can all agree that hydraulic fracturing would have impacts. As with most industries, some impacts may be positive- jobs, investment- and others may be negative- climate change or environmental risks. What we want to understand is the scale of these impacts. I believe that this is also something that people across Scotland want to understand. This is why we are compiling a comprehensive body of research, publishing that research in full, and carrying out a public consultation.

Why did the Scottish Government ignore the advice of its Independent Expert Scientific Panel?

The report by the Independent Expert Scientific Panel recognised that while there was a considerable body of international research and evidence into unconventional oil and gas, there were gaps in key areas, including on climate change, public health and decommissioning. These recommendations formed the basis of the projects undertaken by the independent research contractors.

How has the Scottish Government ensured this research is fully impartial?

The Scottish Government is committed to gathering robust evidence on the potential impacts of unconventional oil and gas, and giving stakeholders and the public time to consider the issues and express their views and concerns.

This independent research was awarded following Scottish Government procurement guidelines, and subject to confirmation that there were no conflicts of interest present in carrying out the work.

Does the Scottish Government remain highly sceptical about fracking?

We are aware that many communities in Scotland are sceptical about unconventional oil and gas; the views of communities cannot be brushed aside.

This is why the Scottish Government has undertaken one of the world's most comprehensive programmes of research into unconventional oil and gas, which will be followed by a public consultation. This will allow both the Scottish Government and the Scottish people the opportunity to fully examine the evidence.

The Scottish Government will come to a considered judgment on unconventional oil and gas once we have completed our consultation. Given the seriousness of the issue, this is the right and proper way to proceed.

Why is there a gap between the research being published and the consultation?

When we set out the plan for the research and consultation we committed to providing time for reflection and consideration of the research findings ahead of launching a 4 month public consultation.

Publication of the research is happening a little later than planned, but the consultation will commence over the winter according to schedule.

What form will the consultation on UOG take?

The purpose of the consultation is to give Ministers the information required to take a decision on the future of UOG that is in the best interests of the people of Scotland.

Preparations are being made to ensure the consultation:

1. stimulates informed debate on this issue across civic Scotland;
2. presents informative, balanced and impartial information;
3. sets out UOG issues within the context of wider energy or industrial issues;
4. encourages widespread and varied participation in the consultation.

What will happen after the consultation?

The consultation will launch at the end of January and will run alongside the consultation on the draft Energy Strategy.

The results of the consultation will be analysed over spring/summer 2017.

We will use the research alongside the views and information gathered through the consultation to reach a considered judgement on this important issue.

The Scottish Parliament will then be given an opportunity to vote on the future of UOG in Scotland.