

Finalisation of the Scottish Government's Policy Position on Unconventional Oil and Gas

Strategic Environmental Assessment Post Adoption Statement

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1. Finalisation of the Scottish Government's Policy Position on Unconventional Oil and Gas in Scotland

1.1 Introduction

- 1.1.1 The Scottish Government has taken a cautious, evidence-led approach to considering unconventional oil and gas ('UOG') in Scotland. On 3 October 2017, the Scottish Government set out a preferred policy position, subject to statutory assessments, that it does not support onshore unconventional oil and gas development in Scotland. Independent consultants LUC were commissioned to undertake a Strategic Environmental Assessment (SEA) of the Scottish Government's preferred policy position (PPP) and an Environmental Report¹ was published in October 2018, alongside an updated PPP statement and a partial Business and Regulatory Impact Assessment (BRIA)². Views were invited on the contents of these documents ('the 2018 consultation documents') between October and December 2018. A Consultation Addendum³ was published on 30 April 2019 and further comments sought. A finalised policy position of no support for the development of unconventional oil and gas in Scotland published on 3 October 2019⁴.
- 1.1.2 As required by the Environmental Assessment (Scotland) Act 2005 ('the 2005 Act'), this Post Adoption Statement sets out how the SEA and consultation responses have been taken into account in finalising the policy position.

1.2 Background

- 1.2.1 The PPP statement published for consultation in October 2018 discussed the factors put before Ministers which led to their stating their preferred policy position. These included concerns over the insufficiency of epidemiological evidence on health impacts. It also referenced the conclusion by the Committee on Climate Change in its report for the Scottish

¹ Environmental Report for the SEA of the Scottish Government's Preferred Policy Position on Unconventional Oil and Gas in Scotland. (Final Report prepared by LUC, October 2018)
<https://www2.gov.scot/Resource/0054/00542275.pdf>

² Partial Business and Regulatory Impact Assessment: Policy on the development of onshore unconventional oil and gas in Scotland. (The Scottish Government, October 2018)
<https://www2.gov.scot/Resource/0054/00542264.pdf>

³ Addendum to the 2018 consultation on the Scottish Government's preferred policy position on unconventional oil and gas (UOG), the Strategic Environmental Report, and partial Business and Regulatory Impact Assessment (BRIA). (The Scottish Government, April 2019)
<https://www.gov.scot/publications/addendum-2018-consultation-policy-position-unconventional-oil-gas-uog-sea-environmental-report-bria/>

⁴ <https://www.gov.scot/publications/scottish-governments-finalised-policy-position-unconventional-oil-gas-development/>

Government on unconventional oil and gas⁵, that unconventional oil and gas extraction in Scotland would make meeting our existing climate change targets more challenging.

- 1.2.2 Added to that, the Scottish Government has acknowledged the concerns conveyed by communities, particularly in areas where developments could take place, who have yet to be convinced there is a strong enough case of national economic importance for onshore unconventional oil and gas development when balanced against the risk and disruption they anticipate on matters such as transport impacts, risks of pollution, and on their general health and wellbeing.
- 1.2.3 The Consultation Addendum built on the October 2018 consultation by providing further clarification on a number of points raised by respondents, including on the PPP and its objectives. The addendum also updated the Scottish Government's position on the reasonable alternatives to the PPP which were considered as part of the SEA process.

⁵ Scottish unconventional oil and gas: Compatibility with Scottish emission targets. (Committee on Climate Change, November 2016)
<https://www.theccc.org.uk/publication/scottish-unconventional-oil-and-gas-compatibility-with-scottish-emissions-targets/>

2. Strategic Environmental Assessment Process

2.1.1 The 2005 Act requires public bodies in Scotland to carry out a Strategic Environmental Assessment (SEA) on their plans, programmes and strategies. SEA is a way of examining plans as they develop to identify any significant effects they may have on the environment. It ensures that environmental considerations are taken into account and, where required, proposes mitigation measures to avoid or minimise any potentially significant adverse environmental effects.

2.1.2 The SEA process commenced with scoping, and a scoping report was submitted to the SEA Gateway in March 2018. All the environmental topic areas were scoped into the assessment. The scoping report was followed in October 2018 by the Environmental Report, which was made available for comment alongside an updated Preferred Policy Position Statement and a partial BRIA. A Consultation Addendum was subsequently published for consultation in April 2019. Responses to the 2017 Talking “Fracking” consultation⁶, 2018 consultation, and 2019 addendum consultation have all been taken into account in reaching the finalised policy position of 3 October 2019.

2.2 Structure of this Post Adoption Statement

2.2.1 This SEA Post Adoption Statement is the final output from the SEA process and is required under the 2005 Act. Section 18(3) of the 2005 Act sets out the information that should be included in the SEA Post Adoption Statement. In summary, it should set out:

- how the environmental considerations have been integrated into the plan, programme or strategy;
- how the Environmental Report has been taken into account;
- how the opinions expressed by consultees have been taken into account;
- the reasons for choosing the plan, programme or strategy as adopted, in light of any reasonable alternatives considered; and
- the measures to be taken to monitor the significant environmental effects of the implementation of the plan, programme or strategy.

2.2.2 Where this Post Adoption Statement refers to the consultation responses received, it draws on the findings of the independent analysis of consultation responses which is available to view online⁷.

⁶ Talking “Fracking”: A Consultation on Unconventional Oil and Gas (Scottish Government, May 2017).

<https://consult.gov.scot/energy-and-climate-change-directorate/fracking-unconventional-oil-and-gas/>

⁷ Consultation on a strategic environmental assessment (SEA), partial business and regulatory impact assessment (BRIA), and preferred policy position on the Scottish Government’s long-term policy on onshore unconventional oil and gas in Scotland: Analysis of responses (Dawn Griesbach, Jennifer Waterton, Alison Platts and Mirela MacInnes: Griesbach & Associates)

<https://www.gov.scot/publications/consultation-strategic-environmental-assessment-partial-business->

3. Integration of Environmental Considerations

- 3.1.1 The Scottish Government has taken a cautious, evidence-led approach to considering unconventional oil and gas ('UOG') in Scotland. This included commissioning a report by an Independent Expert Scientific Panel⁸, which was published in July 2014. In January 2015, we put in place a moratorium on UOG development in Scotland which prevented hydraulic fracturing and coalbed methane extraction taking place. The moratorium allowed us to undertake a far-reaching investigation into UOG, which included evidence gathering to examine the potential environmental, health, and economic impacts. These research projects included, but were not limited to, research on compatibility with Scottish greenhouse gas emissions targets, and on understanding and monitoring induced seismic activity. Further information on this evidence gathering stage is available online.⁹
- 3.1.2 In January 2017 we launched Talking "Fracking": a consultation on unconventional oil and gas which received more than 60,000 responses. The results of that consultation and of the evidence gathered led to the development of our PPP on UOG, which was announced by the Minister for Business, Innovation and Energy in a statement to the Scottish Parliament on 3 October 2017. The Scottish Government commissioned independent consultants LUC to undertake the SEA, which was published for consultation alongside an updated preferred policy position statement and partial BRIA in October 2018.
- 3.1.3 In light of the 2018 consultation responses, the Scottish Government published the consultation addendum which updated our position on the SEA reasonable alternatives and provided further clarification including on the objectives of the PPP. Those objectives are expressed in the consultation addendum as follows: *"To ensure that in both the planning sphere and in relation to Ministers' onshore oil and gas licensing and regulatory powers, policy should (i) minimise the potential risk of environmental and health impacts by adopting a precautionary approach; (ii) promote the achievement of our energy transition goals; and (iii) maximise the prospects of meeting the Scottish Government's carbon emissions and climate change targets"*.
- 3.1.4 Our finalised policy statement sets out the particular concerns identified by the Scottish Government as the basis of the policy of no support for the development of unconventional oil and gas in Scotland. These include the insufficiency of epidemiological evidence on health impacts highlighted by Health Protection Scotland; the concerns from communities across Scotland regarding the disruption they anticipate on matters such as transport

[regulatory-impact-assessment-preferred-policy-position-scottish-governments-long-term-policy-onshore-unconventional-oil-gas-scotland-analysis-responses/](#)

⁸ The Expert Scientific Panel on Unconventional Oil and Gas published its report on 28 July 2014. <https://www.gov.scot/publications/expert-scientific-panel-report-unconventional-oil-gas/>

⁹ Evidence gathering on unconventional oil and gas (Scottish Government) <https://www.gov.scot/policies/oil-and-gas/unconventional-oil-and-gas/#evidence>

impacts, risks of pollution, and on their general health and wellbeing; and, concern regarding the compatibility of an unconventional oil and gas industry with Scotland's climate change targets.

4. How the Environmental Report has been taken into account

- 4.1.1 For the purposes of the assessment, the 2018 Environmental Report assesses the effects of unconventional oil and gas development avoided under the PPP, and compares this to the effects of the development of an industry on a 'business as usual' basis as represented by a 'broad range of impact scenario' based on the KPMG (2016¹⁰) development scenarios of 'a) central, b) low and c) high levels of exploration, appraisal and extraction of onshore unconventional oil and gas', as well as to the development of a single theoretical pilot project¹¹. The 2018 Environmental Report concluded that the development of a UOG industry in Scotland has the potential for significant negative effects on the environment, even when taking account of existing regulation and consenting processes.
- 4.1.2 The Report concluded that the effect of the PPP would be to avoid the environmental impacts associated with UOG industry in Scotland. Specifically, the 2018 Environmental Report concluded that there is potential for significant negative effects across the SEA topics areas of air, water quality, climatic factors, biodiversity, flora & fauna, cultural and archaeological heritage, landscapes & geodiversity, and population and human health. Several of these effects could combine to result in more significant effects on population and human health (for example as a consequence of cultural heritage, landscape, water, air and climatic impacts) and on biodiversity, flora and fauna (for example, as a consequence of air, water and climate impacts).
- 4.1.3 The SEA concluded that a single theoretical pilot project would have much lower environmental impacts, however the potential for significant effects would remain depending on the pilot's location relative to sensitive communities, habitats, waterbodies or historic sites, while the risk of pollution associated with accidents or unplanned emissions would remain. There could also be significant population and human health effects as a result of physical health and safety risks.

¹⁰ Unconventional oil and gas: Economic Impact Assessment and scenario development of unconventional oil and gas in Scotland (KPMG 2016)
<https://www.gov.scot/publications/unconventional-oil-gas-economic-impact-assessment-scenario-development-unconventional-oil/>

¹¹ The 2018 Environmental Report included consideration of the development of a theoretical single pilot project in one of three alternative locations within the Midland Valley and within a PEDL area where resource has been identified. The purpose of a theoretical pilot project would be to further inform the evidence base, including increasing understanding of the potential resource, and impacts associated with its extraction. The theoretical pilot project is based on a number of assumptions including that a project would have research and geoscience as its key driver, and be required to be delivered in collaboration with an independent research body or an academic institution and demonstrate whole lifespan of development (exploration, appraisal, production, and decommissioning) over approximately 10 years.

4.1.4 Based on the evidence on impacts – including the potential for significant negative effects on the environment - and on a clear lack of social acceptability, the Scottish Government has adopted its finalised policy position of no support for the development of unconventional oil and gas in Scotland.

5. How the opinions expressed have been taken into account

5.1 The Responses Received

5.1.1 Altogether, 2,577 responses were received to the 2018 consultation. These comprised:

- 181 responses submitted on the Scottish Government's online response form
- 15 responses submitted by email, post or other route (including relevant correspondence sent to the First Minister's office)
- 2,381 campaign responses

5.1.2 A substantial number of the responses to individual questions were driven by two underlying – and very different – perspectives on the future of the unconventional oil and gas industry in Scotland and / or the approach to the SEA. These are as follows:

- Community councils and other community groups, third sector organisations, and most individual respondents believed that a full legislative ban on the development of the unconventional oil and gas industry should be introduced.
- Business / industry respondents and a small number of individuals contested the methodological approach to the SEA. In particular, they thought the adverse environmental effects of an unconventional oil and gas industry had been overstated / exaggerated.

5.1.3 In light of some of the views expressed in response to the 2018 consultation, the Scottish Government published a Consultation Addendum to clarify certain aspects of the 2018 consultation documents and to update its position on the reasonable alternatives to the preferred policy position. In particular, the addendum addressed four matters:

- The objectives of the preferred policy position;
- consideration of the 'reasonable alternatives' to the preferred policy position;
- the focus on policy, not legislation; and
- mitigation.

5.1.4 Respondents were asked in a single question for their views on the contents of the Addendum. A total of 113 responses were received of which 14 were removed from the analysis (for example because they were blank or duplicate responses).

5.1.5 Further information on all the responses received is contained in the Analysis of Consultation Responses available online.

5.2 Comments on the Preferred Policy Position (PPP)

5.2.1 In December 2017, the Scottish Government confirmed their preferred policy position, subject to the completion of SEA and other assessments, of no support for the development of unconventional oil and gas in Scotland. In February 2018, onshore oil and gas licensing powers previously reserved to the UK Government were devolved to the Scottish Government. The Scottish Government position statement was updated in October 2018 to reflect this change, and to confirm that Scottish Ministers would discharge the newly devolved licensing powers in line with their preferred policy position (as stated in December 2017) if that preferred position were to be adopted. Question 5 of the 2018 consultation invited views on the proposals contained within the Scottish Government's preferred policy position statement. A total of 169 respondents (40 organisations and 129 individuals) responded to this question.

5.2.2 **Views in favour of the Scottish Government's preferred policy position:** These respondents reiterated their views that fracking should not be allowed in Scotland. A range of these respondents also explicitly agreed that the PPP should be included in the National Planning Framework and recommended that the PPP should 'move towards finalisation'.

5.2.3 The main concern expressed by those who supported the PPP was that the position 'not to support the development of unconventional oil and gas in Scotland' did not go far enough. These respondents argued that legislation banning the development of UOG was required.

5.2.4 Respondents who were in favour of the PPP requested a number of additions to the final position statement including:

- the timelines leading to the discharge of the Scottish Government's powers;
- An explanation of the phrase 'discharge of powers' – does this refer to the revoking of licences or something else?
- the reasoning in relation to the July 2018 extension of (and any future determination in relation to) Petroleum Exploration and Development Licence (PEDL) 162;
- specific reference to the inclusion of underground coal gasification in any legislation banning the development of UOG;
- a clear articulation of the environmental legislation to be enacted to meet the intent of the Paris Agreement (on climate change).

5.2.5 **SG response:** In addition to the policy of no support for UOG being a material consideration for planning decisions, Scottish Ministers will discharge their onshore licensing powers having regard to the adopted policy position of no support for UOG in Scotland. Therefore, while we cannot foreclose consideration of future onshore oil and gas applications, given the terms of our finalised policy, we do not anticipate granting any new unconventional oil and gas licenses in Scotland.

With regards to the extension of PEDL 162, the Scottish Government received a request for an extension to the initial term of PEDL 162 from

licence-holders INEOS Upstream Ltd. and Reach Coal Seam Gas Ltd. in late April 2018. An extension for a period of 12 months from 01 July 2018 was agreed. The extension of the licence maintained the position current at this time, whilst relevant statutory assessments were undertaken. Following a further application in April 2019, a further extension of 12 months was granted to the licence-holders, as the statutory assessments were yet to conclude. This extension allowed for the conclusion of the policy making process and will allow the licensees to consider their position in light of the finalised policy.

In relation to Underground Coal Gasification (UCG), in October 2015 the Scottish Government put in place a moratorium on UCG so that evidence on this technology could be gathered and considered. Professor Campbell Gemmell, Professor of Environment Research, Policy, Regulation and Governance at the University of Glasgow, was asked to undertake an independent examination of UCG. Professor Gemmell's report, which was informed by literature and through interviews with academics, industry, NGOs, community groups and regulators was published on 6 October 2016¹². The report raises concerns about risks posed by UCG to the environment and public health. Having considered the findings of the report, Scottish Ministers have determined that UCG poses numerous serious environmental risks and should have no place in Scotland's energy mix. Scotland's Energy Strategy, published on 20 December 2017¹³, set out an energy mix for the future that does not include UCG.

In direct response to the UN Paris Agreement, the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 maintains Scotland's legislative framework on climate change as the most stringent in the world. The Act's end target of net-zero emissions of all greenhouse gases by 2045, five years ahead of the UK, is firmly based on what the Committee on Climate Change advise as the "highest possible ambition" called for under the Paris Agreement. The Act also directly links Scotland's fair and safe emissions budget to the global temperature aim set out in the Agreement. The Committee on Climate Change's advice on net zero, published in May 2019¹⁴, was based on the very latest science, expert assessments of the feasibility of technology and approaches, and analysis of the economic costs and benefits. The Scottish Government has committed to seeking further advice from the Committee over the course of 2020 on the pathway to net-zero.

5.2.6 **Views against the Scottish Government's preferred policy position:** Business / industry respondents and a small number of individual respondents were opposed to the PPP. In addition, these respondents

¹² Available online at <https://www.gov.scot/publications/independent-review-underground-coal-gasification-report/>

¹³ Scottish Energy Strategy (Scottish Government, December 2017) <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/>

¹⁴ Net Zero – The UK's contribution to stopping global warming (Committee on Climate Change, May 2019) <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

emphasised that the PPP should include compensation for (current) licence holders as a result of breach of contract, and should also acknowledge that the cost of decommissioning extant wells will fall to the Scottish Government. Further, they wished a formal note to be produced explaining how a finalised policy of 'no support' would be expected to be applied in practice. Respondents considered that this note should also be issued for consultation before the SEA process was finalised.

- 5.2.7 **SG response:** In light of the comments received the Scottish Government issued its Consultation addendum to provide further clarification on a number of points raised in responses, including regarding the preferred policy position. Further comments were invited on the points covered.

The Scottish Government has confirmed that officials will engage with the licence holders on their future intentions in relation to their licences following the announcement of the final policy.

- 5.2.8 **Other views and issues:** One community council suggested that the Scottish Government should adopt a 'wait and see' approach. The key issue for this respondent was to ensure that communities had a major say in whether fracking proceeded in their area or not.

- 5.2.9 **SG response:** The Scottish Government has undertaken an extensive programme of evidence-gathering and public engagement on UOG. Responses to the 2019 addendum consultation, the 2018 statutory assessments consultation, and the 2017 Talking "Fracking" consultation have been considered in detail in line with our consistent, cautious, evidence-led approach to UOG, and have informed the finalised policy position of no support for the development of UOG in Scotland.

5.3 Comments on the Environmental Report

- 5.3.1 **Views on the SEA methodology:** A substantial number of the responses to individual questions were driven by two underlying – and very different – perspectives as follows:

- Community councils and other community groups, third sector organisations, and most individual respondents believed that a legislative ban on the development of the unconventional oil and gas industry should be introduced. These respondents generally accepted (or at least, did not comment on) the SEA methodology, but thought that the negative impacts of an unconventional oil and gas industry had been underestimated in the SEA process.
- Business / industry respondents and a small number of individuals contested the methodological approach which underpinned the SEA. These respondents argued that (i) the SEA did not comply with the provisions of the 2005 Act; (ii) the SEA had not properly taken account of the regulatory environment in which unconventional oil and gas development would take place; and (iii) the definition and assessment of possible options was 'erroneous'. Moreover, they argued that these perceived flaws in the methodology undermined the findings and conclusions of the SEA. In particular, they thought the adverse environmental effects had been overstated / exaggerated.

- 5.3.2 Regulatory bodies and business / industry respondents noted that the Environmental Report concluded that the preferred policy position would have significant positive effects; however, as the effects of the preferred policy position were discussed in terms of 'negative effects avoided' rather than as positive effects, respondents argued that it would be more appropriate for them to be assessed as 'neutral'. There was also a request for clarity about whether the 'business as usual'¹⁵ alternative was intended to represent the 'do nothing' scenario.
- 5.3.3 In addition, business / industry respondents highlighted a range of concerns as follows:
- the SEA does not treat 'business as usual' and a 'pilot project' as 'serious alternatives';
 - the SEA has not assessed Scotland's current and predicted requirements for natural gas and petrochemical feedstock over the next 30 years, and has not explored the impact of meeting those requirements from different domestic and imported sources;
 - the SEA has applied the regulatory measures currently in force in Scotland rather than arrangements in force in England, the latter of which were believed to represent best practice in relation to unconventional oil and gas. Moreover, the SEA did not take into account up-to-date best practice regarding operational procedures;
 - the Environmental Report focuses solely on the predicted environmental effects of the preferred policy position in Scotland; it ignores effects (positive and negative) which are likely to be produced elsewhere.
- 5.3.4 Given these different issues, industry / business respondents considered that the methodology did not comply with the 2005 Act.
- 5.3.5 **SG response:** The Scottish Government published a Consultation Addendum to clarify certain aspects of the 2018 consultation documents and to update its position on the reasonable alternatives to the preferred policy position. Paragraphs 14 to 20 of the addendum address the consideration of 'reasonable alternatives' to the preferred policy position, and set out Scottish Ministers' view that, taking into account the comments since received to the October 2018 consultation, and in light of the objectives of the preferred policy position as clarified in paragraph 12 of this addendum, that Ministers consider there is in effect no option that is a 'reasonable alternative' to the preferred policy position. Ministers consider it clear that, measured against the stated policy objectives, neither the 'business as usual' nor the 'pilot project' alternative can reasonably be expected to achieve either the positive environmental or social outcomes offered by the preferred policy position. Paragraphs 28 to 30 of the addendum address the consideration given to existing regulatory controls as 'assumed mitigation'. Views were invited on the content of the addendum and the responses received are discussed further in paragraphs 5.4.1 to 5.4.20 below.

¹⁵ Under the 'business as usual' scenario planning applications would be brought forward and determined in accordance with the current applicable development plan, the National Planning Framework and all material considerations, but in the absence of the preferred policy position.

Turning to comments regarding the scope and detail of the assessment, the Scottish Government commissioned independent consultants LUC to undertake a Strategic Environmental Assessment in full compliance with all relevant statutory obligations under the 2005 Act. We are satisfied that the assessment represents a robust but also proportionate approach in keeping with the strategic nature of the PPP.

The Environmental Report acknowledges that Scotland currently imports shale gas, and that the preferred policy position is likely to result in some oil and gas products continuing to be sourced from elsewhere. The report sets out that decisions on this matter lie beyond the scope of the policy, and given the difficulty in defining such sources and predicting the associated environmental effects with any degree of certainty, and noting uncertainties about the market response to the production of unconventional oil and gas in Scotland, the scope and focus of the SEA is on the effects that would occur within Scotland specifically as a result of the policy, rather than more generally. We consider that this approach appropriately aligns with the content and level of detail of the PPP and its geographical scope.

Accuracy and scope of the SEA information (Q1)

- 5.3.6 A substantial group of respondents (mainly individuals but also a range of organisations) endorsed the information set out in the Environment Report.
- 5.3.7 However, a second substantial group of respondents expressed concerns about the SEA baseline information, although the extent and nature of the concerns varied. Among this group, the predominant view was that the SEA information was accurate, however there was criticism of differing aspects of its scope (i.e. what had and had not been included for individual topics, and the level of detail presented) and / or how the information had been used. Respondents drew attention to a range of additional evidence and data. Additionally, some respondents highlighted different issues which they felt were not adequately accounted for in the SEA baseline. These included:
- specific issues such as health impacts (including mental health), air, noise and light pollution, carbon emissions, seismic activity (and the impact on pre-existing underground mining works), structural damage to buildings (and the liabilities arising therefrom), disposal of NORM (naturally occurring radioactive material) waste, the impact of abandoned installations, the environmental impact of increased mining for frac sand (a type of sand used to help open underground cracks during the hydraulic fracturing process), impacts on biodiversity, flora and fauna;
 - the social and community impacts of unconventional oil and gas extraction – it was argued that the justification for excluding this from the SEA was not clear;
 - the risk of inadequate industry standards and operational failure and accidents, and evidence on this from around the world;
 - the wider climate change context and the need to limit carbon emissions;
 - the characteristics of specific PEDL areas (including the presence of historic mining works); and

- the existence of Community Charters in PEDL areas.

5.3.8 **SG response:** All of the responses received have been taken into account in finalising the Scottish Government’s policy position on this important matter. Where additional information and data has been provided by consultation respondents, we are content that this does not change the overall conclusions of the SEA, such that the development of a UOG industry in Scotland has the potential for significant negative effects across the SEA environmental topics. With regard to comments on the scope of the SEA, the Scottish Government considers this to be in keeping with the requirements of the 2005 Act. In addition to meeting our statutory SEA obligations, the Scottish Government has undertaken one of the most far-reaching investigations of any government, anywhere, into unconventional oil and gas. This work began in 2013 with the establishment of an Independent Expert Scientific Panel, which reported its findings in July 2014¹⁶. In early 2016, the Scottish Government commissioned a further suite of independent research reports to address the evidential gaps identified by the Expert Panel. The reports, covering health, economic and environmental matters, allowed us to consider further independent expert scientific and economic impact advice, including from the British Geological Survey, Health Protection Scotland, and the UK Committee on Climate Change¹⁷.

A public consultation, Talking “Fracking”, was launched on 31 January 2017. The consultation embodied the Scottish Government’s commitment to local communities participating in decisions that matter to them, and included a number of innovative steps to encourage debate, dialogue and wide participation. Responses to the 2017 Talking “Fracking” consultation, 2018 consultation (including on the SEA Environmental Report), and 2019 addendum consultation have all been considered by Scottish Ministers as part of the finalisation of unconventional oil and gas policy in Scotland. The Scottish Government’s finalised policy position acknowledges the deeply held and sincere views on all sides. The finalised policy position further acknowledges that communities across Scotland, particularly in areas where developments could take place, have yet to be convinced there is a strong enough case of national economic importance, when balanced against the risk and disruption they anticipate on matters such as transport impacts, risks of pollution, and on their general health and wellbeing.

5.3.9 The alternative view, expressed by business and industry respondents and a handful of individuals, was that the SEA information exhibited ‘serious errors, inaccuracies and inconsistencies’. This group of respondents made a range of detailed comments and criticisms about the accuracy of the information and how it had been interpreted, the assumptions (operational and economic) underlying the assessment, and the conclusions drawn as outlined below:

¹⁶ More information on the work of the Expert Panel, including the final report, can be found at: <http://www.gov.scot/Publications/2014/07/1758/0>

¹⁷ The research reports were published in full on 08 November 2016. The research reports can be read at: <https://www.gov.scot/Topics/Business-Industry/Energy/onshoreoilandgas/EvidenceGathering>.

- **Evidence:** A range of detailed points were highlighted by respondents. For example, they thought that the SEA and / or the evidence it drew on had:
 - drawn selectively from evidence (including from the KPMG report commissioned by the Scottish Government and work carried out for SEPA);
 - not taken a UK-wide or global perspective in assessing environmental costs and benefits and, in particular, had not accounted for potential imports in the calculation of carbon emissions;
 - incorrectly applied evidence on super-emitters (i.e. large-scale gas production sites that account for a disproportionate share of methane emissions) to the Scottish context;
 - failed to consider coalbed methane (CBM) and underground coal gasification (UCG) separately, and make CBM-specific situations clear;
 - failed to assess the impact on deep geothermal energy development;
 - not included relevant evidence relating to offshore practices;
 - not taken account of evidence on the impact of existing onshore wells in Scotland; and
 - not provided sufficient information on the proposed pilot project to allow proper assessment.
- **Assumptions:** Respondents thought that the discussion of unconventional oil and gas operations and related mitigation processes and regulatory approaches did not reflect up-to-date practice and procedures in the UK.
- **Conclusions:** There was a view that the SEA conclusions were not evidence based. Additionally, it was argued that the SEA carried out by the UK Government Department of Environment and Climate Change (DECC) for the 14th PEDL Round should have been referenced in the Environmental Report, and that an explanation of how the Scottish Government's current SEA had reached different conclusions to those reported by DECC should have been provided.

5.3.10 **SG response:** The Scottish Government commissioned independent consultants LUC to undertake a Strategic Environmental Assessment in full compliance with all relevant statutory obligations under the 2005 Act. As discussed in paragraph 5.3.5 above, the Scottish Government considers it appropriate that the scope and focus of that SEA is on the effects that would occur within Scotland. Further, we consider that the overall assessment represents a proportionate approach in keeping with the strategic nature of the PPP.

As the 2018 Environmental Report sets out, coal bed methane (CBM) is considered to be an unconventional source of gas. This is because the gas is present in the coal rather than being held in pore spaces within rock. To

extract the gas, water is drained from the coal seam to release pressure (known as dewatering). This may be undertaken with or without hydraulic fracturing, depending on local geological conditions. The Environmental Report further sets out that the evidence base does not consistently make clear differences between the environmental impacts of CBM and shale oil and / or gas extraction. However, where different effects can be identified, these are drawn out in the assessment. With regards to UCG, Scottish Ministers have determined that UCG poses numerous serious environmental risks and should have no place in Scotland's energy mix. Scotland's Energy Strategy, published on 20 December 2017, set out an energy mix for the future that does not include UCG.

The Environmental Report notes that there is recent evidence that 2% of sites on the Barnett shale in Texas, United States, are responsible for half of the methane emissions from this location and these sites are considered "super-emitters". The Report goes on further to say these recent levels cannot be assumed to represent the Scottish situation due to contrasts in geology and source material. The Report acknowledges there is uncertainty over the characteristics which cause some unconventional oil and gas developments to be super emitters or the quantity of greenhouse gases emitted, and therefore on the extent to which this effect would occur in Scotland.

In relation to the degree to which evidence on the impact of existing onshore wells in Scotland was considered, there was a insufficiency of data across the whole production cycle from existing wells in Scotland.

Regarding deep geothermal, while it is true that artificial stimulation techniques, such as hydraulic fracturing, may be required to access geothermal energy in some geological conditions and at some depths (such as hot dry rocks, several kilometres deep), as the findings of a Scottish Government commissioned study demonstrate, Scotland's geology has the potential to provide geothermal heat in a range of conditions and depths. Further, as the SEA was undertaken in respect of the potential environmental effects of a policy of no support for unconventional oil and gas development in Scotland, it is not considered appropriate, or necessary, to assess the impact of this on deep geothermal energy development within the context of the SEA. The Scottish Government is not aware of any fully developed proposals to utilise hydraulic fracturing to access deep geothermal energy.

The Scottish Government notes that some responses commented that the description given to the 'reasonable alternatives' on pages 24 to 25 of the 2018 Environmental Report lacked clarity. This point is addressed in paragraphs 14 to 20 of the 2019 Consultation Addendum. Paragraphs 28 to 30 of the Consultation Addendum address comments received regarding mitigation.

All of the responses received to the 2017 Talking "Fracking" consultation, 2018 consultation, and 2019 addendum consultation have been taken into account in reaching a finalised policy position.

Views on the predicted environmental effects (Q2)

- 5.3.11 The 2018 Environmental Report set out an assessment of the predicted environmental effects for both the preferred policy position and for the 'reasonable alternatives.' Views were invited.
- 5.3.12 A range of both organisational and individual respondents, but particularly public sector organisations, simply said they 'agreed with the assessments in the Environmental Report.'

Predicted effects are underestimated / understated

- 5.3.13 The predominant view was that the assessment represented, if anything, a rather optimistic view of the likely environmental impacts of the development of the unconventional oil and gas industry. This view was expressed by community councils and other community groups, third sector organisations, one local authority and most individuals. In some cases additional evidence was cited.
- 5.3.14 Some respondents felt that public health and mental health impacts had been given a low priority in the SEA process, and that the expertise to judge these was missing from the list of authors of the Environmental Report. Some of these respondents particularly highlighted the negative impacts on the health and wellbeing of children.
- 5.3.15 There was an especially strong focus on the issue of climate change and repeated references were made to the report published by the IPCC in October 2018¹⁸ and to the importance of stepping up efforts to meet the targets for the reduction of greenhouse gas emissions set out by the Scottish Government. Respondents thought that the IPCC report reinforced the SEA and provided new reasons to support the SEA conclusions.

Predicted effects are exaggerated / overstated

- 5.3.16 The alternative view, expressed by business and industry respondents and by a handful of individuals, was that the predicted environmental effects were unsubstantiated and / or exaggerated and did not take into account the tight regulatory environment in which development of the industry would take place.
- 5.3.17 Organisational respondents listed a wide range of mitigation measures currently undertaken (in England) which they thought could be, and should be, applied in Scotland. This group of respondents considered that if the 'proper' mitigation processes (i.e. those currently applied in England) were applied, the risks would be 'negligible' or at worst 'minor negative' in most cases.
- 5.3.18 The following points were also made:
- no conclusions can be drawn unless and until a number of test sites have been commissioned, monitored, and evaluated;

¹⁸ Intergovernmental Panel on Climate Change (IPCC) (2018) Special Report on Global Warming of 1.5 °C <https://www.ipcc.ch/sr15/>

- the assessment that the preferred policy position would mean an effective ban on unconventional oil and gas development in Scotland was incorrect given the recent legal ruling;
- it is not clear why the SEA concludes that there is not enough data to assess whether or not shale oil and gas produced in Scotland would provide a net environmental benefit as compared to oil and gas produced elsewhere;
- outsourcing the negative environmental aspects of providing oil and gas to the Scottish economy to other countries might make the Scottish Government's climate change targets easier to achieve, but the rest of the world will suffer;
- the probability of any of the identified risks occurring has not been discussed.

5.3.19 **SG response:** The Scottish Government has set out a finalised policy position of no support for UOG development in Scotland. This follows the conclusion of a comprehensive period of evidence gathering and consultation, of which the SEA is one part. In reviewing the research findings, the Scottish Government has identified particular concerns over the insufficiency of epidemiological evidence on health impacts highlighted by Health Protection Scotland. The compatibility of an unconventional oil and gas industry with Scotland's world leading climate change targets is an area of further concern. Whilst acknowledging the important role of gas in the transition to a low carbon energy future, the addition of an onshore unconventional oil and gas industry would not promote our ability to meet our greenhouse gas emissions targets or objectives in relation to protecting and enhancing the environment. It is clear from consultation responses that communities across Scotland, particularly in areas where developments could take place, have yet to be convinced there is a strong enough case of national economic importance, when balanced against the risk and disruption they anticipate on matters such as transport impacts, risks of pollution, and on their general health and wellbeing. Although the Scottish Government is confident that an unconventional oil and gas industry would aim to work to the highest environmental, and health and safety standards, it is also our responsibility as a government to make a decision we believe is the best for the people of this country. We must be confident that the choices we make will not compromise health and safety or damage the environment in which we live.

With regards to outsourcing, the Scottish Government is aware of the importance of chemical feedstocks to industry. Where they are sourced from is a commercial decision for industry.

The 'reasonable alternatives' to the preferred policy position (Q3)

5.3.20 The 2018 Environmental Report set out two 'reasonable alternatives' – 'business as usual' (which would relate to the development of an unconventional oil and gas industry) and a 'pilot project' (subject to the relevant licensing and permitting regimes). There were two main perspectives in the comments received:

- The predominant view (expressed by community councils and other community groups, third sector organisations, and most individual respondents) was that both the reasonable alternatives discussed in the Environmental Report had the potential for significant negative environmental impacts. This group of respondents thought neither of the 'reasonable alternatives' would be acceptable to local communities. Some in this group stated that the only reasonable alternative, as far as they were concerned, was a legislative ban on the development of an onshore unconventional oil and gas industry.
- A second perspective was expressed by business / industry respondents and a small number of individuals. This group thought that neither the 'business as usual' nor the 'pilot project' scenarios were treated in the Environmental Report as serious alternatives. Some respondents, including regulatory bodies, felt there was a lack of clarity in relation to the terminology used to describe the 'reasonable alternatives' in the Environmental Report. One response from industry stated that consideration should have been given to a development scenario intended to supply natural gas and feedstocks exclusively.

5.3.21 **SG response:** The Scottish Government's 2019 Consultation Addendum provided further clarification and updated our position on the reasonable alternatives. Specifically, the Addendum sets out that, taking into account the comments received to the October 2018 consultation, and in light of the objectives of the preferred policy position, Ministers consider there is in effect no option that is a 'reasonable alternative' to the preferred policy position. Paragraphs 14 to 20 of the Addendum refer. Regarding the natural gas and feedstocks development scenario suggested by industry, as indicated in para 5.3.19 above, the Scottish Government is aware of the importance of chemical feedstocks to industry. Where they are sourced from is, however, a commercial decision for industry.

Proposals for mitigation and monitoring (Q4)

5.3.22 There were three main messages in the comments offered in relation to mitigation and monitoring as follows:

- The predominant view (expressed by community councils and other community groups, third sector organisations, and most individual respondents) was that the mitigation and / or monitoring measures suggested in relation to the 'reasonable alternatives' would not be sufficient to reduce the environmental effects to acceptable levels. These respondents thought the only acceptable way forward was to adopt the Scottish Government's preferred policy position and to not support any (further) development of the unconventional oil and gas industry.
- Business / industry respondents and a handful of individuals believed that the mitigation and / or monitoring arrangements should be based on existing best practice. In particular, they thought arrangements in place in England were adequate to deal with any potential hazards linked to unconventional oil and gas extraction. They went on to quote the statement by the UK Government Department of Energy and Climate Change that 'existing regulatory requirements, provided they are

followed, will ensure that effects at the project level will be identified, assessed and mitigated to an acceptable level', and asked why the Scottish Government does not concur with this view. Finally, these respondents thought that the SEA had not made clear what improvements to current unconventional oil and gas operational practices were required in order to satisfy the Scottish Government.

- Regulatory bodies were generally content with the mitigation and monitoring arrangements proposed. However, they requested more details of how aspects of these arrangements would be applied in practice, to be set out in the SEA Post-Adoption Statement.¹⁹

5.3.23 **SG response:** In light of some responses received, the 2019 Consultation Addendum provided further clarification on those ways in which the SEA took into account mitigation. In particular, the Addendum clarifies that the SEA Environmental Report considers and takes into account as 'assumed mitigation' existing regulatory controls in assessing the likely significant effects of unconventional oil and gas on the environment. The 'Scope for further mitigation' measures applicable to 'business as usual' and a single theoretical pilot project are also identified, and their likely effects set out in each of the Environmental Report topic chapters. Paragraphs 28 to 30 of the addendum refer. One regulatory body asked for more details of how the mitigation measures set out in Chapter 15 (in relation to the 'business as usual' and 'pilot project' options) of the 2018 Environmental Report would be implemented. The Environmental Report concludes that a policy position of no support for the development of unconventional oil and gas in Scotland would not result in any potential significant negative effects, therefore no mitigation measures are identified in relation to the position of no support, since adopted. It is however acknowledged that relevant mitigation measures, including those set out in chapter 15 of the Report, could also be applied to any planning applications considered under the finalised policy. Provisions on monitoring are discussed in section 7 below.

5.4 Comments on the 2019 Consultation Addendum

5.4.1 In light of some of the views that were expressed in response to the 2018 consultation on the Environmental Report, the partial Business and Regulatory Impact Assessment (BRIA), and the Scottish Government's preferred policy position, the Scottish Government published an addendum to the 2018 consultation documents to clarify certain aspects of these documents and to update its position on the reasonable alternatives to the preferred policy position. In particular, the addendum addressed four matters: The objectives of the preferred policy position; the consideration of the 'reasonable alternatives' to the preferred policy position; the focus on policy, not legislation; and, on mitigation. Comments were invited and 113 responses received, of which 14 were removed for example because they were blank or duplicates. The report of the independent analysis of consultation responses gives further information.

¹⁹ The 2005 Act requires a statement to be published after the adoption of a relevant plan which sets out how the Environmental Report and the opinions expressed on it have been taken into account.

- 5.4.2 There was a clear difference in the views expressed on the 2019 Addendum by community councils, other community groups, campaign organisations, and most individuals on the one hand, and industry bodies and a small group of individuals on the other.
- 5.4.3 The main concern of both individuals and organisations in the former group was in relation to the Scottish Government's proposals to use policy, rather than primary legislation, to control unconventional oil and gas development.
- 5.4.4 Industry bodies and a small number of individuals who expressed support for the development of an unconventional oil and gas industry in Scotland generally provided longer and more detailed responses which addressed (what they saw as) inconsistencies in the Scottish Government's discussion of the preferred policy position, the approach used to assess the environmental impacts of the 'reasonable alternatives', and the extent to which mitigation could be used to reduce the impact of unconventional oil and gas development.
- 5.4.5 Regulatory bodies / statutory consultees (Scottish Natural Heritage, Scottish Environment Protection Agency and Historic Environment Scotland) made general comments acknowledging the contents of the addendum and welcoming the clarification provided.
- 5.4.6 **Objectives of the preferred policy position:** In general, community councils, other community groups, and 'other organisations' and most individuals said that they (i) supported the position of the Scottish Government with respect to onshore unconventional oil and gas development, (ii) welcomed the Scottish Government's acknowledgement of community concerns on this issue, and (iii) wished to see the policy move forward as quickly as possible to finalisation. This group highlighted concerns about the adverse impacts of unconventional oil and gas. They also suggested that the [preferred policy position] was 'more relevant than ever', in light of recommendations from the Committee on Climate Change on carbon emissions targets. Respondents in this group made a range of other disparate points, including that (i) the Scottish Government should adopt a similar policy in relation to **offshore** oil and gas extraction; (ii) the Scottish Government should develop policies to allow supplies of fossil fuels to be maintained solely for use as chemical feedstocks for industry; and (iii) the wording of the objectives of the preferred policy position should be strengthened, so as to 'eliminate' (rather than 'minimise') potential environmental and health impacts and 'guarantee' (rather than 'maximise') the prospects of meeting carbon emissions and climate change targets. There was also a query about why the addendum had not referred to new evidence which had come to light since the consultation process had started.²⁰
- 5.4.7 Representatives from industry bodies and a small number of individuals expressed views that contrasted to those outlined above. In particular:

²⁰ Some respondents referred to: Concerned Health Professionals of New York and Physicians for Social Responsibility (2019) Compendium of evidence on the risks and harms of fracking, 6th edition. <http://concernedhealthny.org/compendium/>

- they highlighted that the ‘new’ policy objective of ‘adopting a precautionary approach’ was not mentioned or discussed in the Environmental Report or partial BRIA. These respondents suggested that further work would be required to the SEA and BRIA to explain, justify and quantify the precautionary approach objective;
- they disputed the Scottish Government’s conclusion that the development of an onshore unconventional oil and gas industry in Scotland would make achieving the Government’s climate change commitments more challenging. These respondents believed that this conclusion was not consistent with the recommendations made in the most recent report of from Committee on Climate Change (published in May 2019). They argued that the Scottish Government’s preferred policy position would ‘effectively offshore Scottish carbon emissions’, resulting in higher carbon emissions overall, contrary to the Committee’s recommendation – whereas the development of a domestic source of shale gas would reduce the need to import gas from overseas;
- compared to the alternative of continuing to import natural gas from overseas, developing a domestic source of gas would also (i) ensure greater control and scrutiny of regulations on health and safety and the environment; (ii) enable a more accurate assessment of Scotland’s progress in reducing its carbon emissions; and (iii) allow Scotland to maintain a level of independence and self-sufficiency in its energy supply.

5.4.8 Occasionally, individuals in this group made other points, including that (i) Scottish domestic oil and gas resources may not be needed by Scotland, but could be used to support the needs of the rest of the UK, thus ensuring that the rest of the UK can minimise its total carbon emissions; and (ii) there is insufficient objective scientific evidence to justify the Scottish Government’s policy stance on this subject.

5.4.9 **SG response:** The precautionary principle is one of a range of environmental principles which guide and shape modern environmental law. It is expressly mentioned in the first recital to the SEA Directive. Our ‘Environmental Principles and governance after Brexit’ consultation²¹ confirmed that the Scottish Government proposes to introduce a duty on Scottish Ministers to have regard to the four EU principles, including the precautionary principle. We consider it appropriate that this principle was reflected in the objectives of the preferred policy position, as set out in the consultation addendum of April 2019, but do not consider that any further assessment or appraisal was required in this respect.

With regard to carbon emissions, as outlined in the Programme for Government 2019-20, the Scottish Government’s continued support for oil and gas exploration and production in the North Sea is now based on a sustainable, secure and inclusive energy transition. This includes industry ambitions to become the first net-zero carbon basin in the world, at the point of production. The IPCC 2018 Special Report recognises that both oil and natural gas will continue to play a significant role in the global energy mix to 2050. North Sea production is highly regulated, with some of the most

²¹<https://www.gov.scot/publications/consultation-environmental-principles-governance-scotland-4/>

advanced and comparatively least-polluting production methods in the world. Maintaining domestic oil and gas production can lead to lower net global emissions.

- 5.4.10 **Consideration of the ‘reasonable alternatives’ to the preferred policy position:** Some community councils and / or other community groups and a small number of individuals said they supported the Scottish Government’s view that the ‘business as usual’ and ‘pilot project’ options could not be considered to be reasonable alternatives [to the Scottish Government’s preferred policy position]. Industry bodies argued that the Scottish Government’s decision to ‘entirely drop’ the two ‘reasonable alternatives’ is, in their view, a breach of section 14(2) of the Environmental Assessment (Scotland) Act 2005 and contradicts the Scottish Government’s guidance on Strategic Environmental Assessment.
- 5.4.11 This group argued that, if the Scottish Government had failed to identify a ‘reasonable alternative’ against which to assess the preferred policy position, then ‘the next stage of consultation should have been to invite comment about what would be reasonable alternatives’. This group also suggested that if the two ‘reasonable alternatives’ set out in the Environmental Report do not meet the Scottish Government’s policy objectives, then the Scottish Government should explain why. In the views of these respondents, the addendum consultation does not currently provide this explanation.
- 5.4.12 **SG response:** The Scottish Government considers that all statutory obligations, including those which apply under the Environmental Assessment (Scotland) Act 2005 have been met in full. We note the comments from some respondents requesting an explanation as to why the two ‘reasonable alternatives’ are not considered to meet the policy objectives. As discussed in section 4 above, the 2018 Environmental Report assesses the effects of UOG development avoided under the PPP, and compares this to the effects of the development of an industry as on a ‘business as usual’ basis represented by a ‘broad range of impact scenario’, as well as to the development of a single theoretical pilot project. The assessment concluded that the development of a UOG industry in Scotland has the potential for significant negative effects on the environment, even when taking account of existing regulation and consenting processes. It concluded that a single theoretical pilot project would have much lower environmental impacts, however the potential for significant effects would remain. Paragraphs 12 and 18 of the 2019 Consultation Addendum explained the objectives of the preferred policy position and Ministers’ view that those outcomes could not be expected to be achieved by means of either the ‘business as usual’ or ‘pilot project’ alternatives. There has been no material change of circumstances such as to cause Ministers to consider that matter further. Our finalised policy position provides further context and explanation, including on the insufficiency of epidemiological evidence on health impacts, and compatibility with climate change targets.
- 5.4.13 **Policy, not legislation:** community councils, other community groups and most individual respondents expressed concern about the Scottish Government’s proposal to use planning and licensing mechanisms to control unconventional oil and gas development in Scotland. Some in this group

said that their concern about this issue was the main point they wished to make in their response. Both organisations and individuals in this group commonly made the following points:

- They ‘fundamentally disagreed’ with statements made in the addendum (paragraph 23) setting out the Scottish Government’s view that the adoption of a strong policy, rather than new legislation, is the most appropriate and proportionate means to regulate the development of an unconventional oil and gas industry. Some respondents said that the statements in this paragraph are, for them, ‘incompletely explained’.
- They had little confidence in the planning system to safeguard communities – particularly since communities do not have the same right of appeal as developers in planning matters.
- They suggested that developers within the unconventional oil and gas industry have the financial means to be able to test the planning system to its full extent – ‘with multiple planning applications and appeals and judicial reviews’.
- They suggested that it was not sufficient that the preferred policy position would carry ‘significant weight’ in development planning once it is embedded into the National Planning Framework (as stated in paragraph 27). Without the force of legislation, this group were concerned that current government policy in relation to unconventional oil and gas development will remain vulnerable to ‘the whims and ideologies’ of future politicians. This will result in continuing uncertainty for communities.
- A failure to implement a legislative ban on unconventional oil and gas development may be regarded by communities as a breach of the human rights of community members and could leave the Scottish Government open to the possibility of legal action by communities.

5.4.14 One NGO respondent attached a report setting out expert legal opinion on the matter, which concluded that it would be within the powers of the Scottish Government to legislate on this matter. This organisation argued that the use of primary legislation would be a ‘surer way to defeat any further legal challenges’ to the Government’s policy.

5.4.15 Among industry bodies, there was little comment on this point. One representative of an industry body explicitly stated that, since they ‘profoundly disagree’ with the Scottish Government’s preferred policy position, they have no comment to make on ‘how it is implemented’. However, there was a view among a small number of individuals who supported the development of an unconventional oil and gas industry that the approach to potential future development implied in the addendum consultation paper (that it will be carried out in accordance with overall planning policy) may lead to confusion in the planning process, and could result in legal challenges or appeals to planning decisions – particularly since, as stated in [the consultation addendum], ‘relevant mitigation measures could be applied to any planning applications considered under the preferred policy position’. This implies that there may be some flexibility

within the process, which seems at odds with the narrow objectives of the preferred policy position.

- 5.4.16 **SG response:** The Scottish Government has been consistent that this has been an exercise in policy development, rather than legislation, and does not consider that new legislation is necessary to control unconventional oil and gas development in Scotland. The adoption of our strong policy, by means of devolved planning powers and licensing, provides the most appropriate and proportionate means to regulate such development, having regard to the objectives of the final policy. Any new legislation would also require all relevant statutory assessments to be completed before it could be introduced to parliament. The Minister for Energy, Connectivity and the Islands also confirmed in his statement to Parliament (3 October 2019) that the option of legislation to control unconventional oil and gas development in Scotland remains open if there is evidence, over time, that further action is required.
- 5.4.17 **Mitigation:** Relatively few respondents commented on the points made in the addendum consultation in relation to mitigation. Among those who did, community councils and other community groups, and a small number of individual respondents emphasised that, in their view, no form of mitigation would be able to satisfy communities across Scotland as to the acceptability of onshore unconventional oil and gas development.
- 5.4.18 One of the (two) industry bodies and one individual made very detailed comments in relation to the issue of mitigation. These respondents argued that:
- the Scottish Government had ignored the use of ‘well proven embedded mitigation measures’ used routinely in this industry;
 - the Environmental Report had acknowledged that regulatory and consenting processes would enable some of the more significant environmental effects to be avoided or reduced in significance;
 - the Environmental Report had ‘almost without exception, made recommendations for regulatory improvements which are already part of best practice for onshore oil and gas developments’; and
 - the ‘uncertainty’ referred to in the addendum consultation paper is debateable and is likely to alter over time as further mitigation techniques are developed, tested and proven.
- 5.4.19 In particular, one respondent noted the statement in the addendum that there is ‘considerable uncertainty’ as to the extent to which the additional mitigation measures could be successfully implemented ‘misrepresented’ Chapter 14 of the Environmental Report.
- 5.4.20 **SG response:** All of the responses received have been taken into account in finalising the Scottish Government’s policy position on this important matter. Further information on the reasons for selecting the finalised policy position are set out in Section 6 below.

6. Finalisation of the Policy Position

- 6.1.1 The information gathered through the environmental assessment, and through the views and opinions of consultees, has been used to inform the Scottish Government's finalised policy position on UOG, published on 3 October 2019²².
- 6.1.2 Unconventional oil and gas is an issue that has stimulated intense debate, motivated by deeply held and sincere views on all sides. The Scottish Government has undertaken one of the most far-reaching investigations of any government, anywhere, into unconventional oil and gas, and we are aware that the future of unconventional oil and gas in Scotland is relevant to wider energy issues and our world-leading climate change ambitions. The Scottish Government is also aware that the potential activity associated with an unconventional oil and gas industry would likely be concentrated in and around former coalfields and oil shale fields in the Central Belt of Scotland, which are among the most densely populated parts of the country.
- 6.1.3 It is clear from consultation responses that communities across Scotland, particularly in areas where developments could take place, have yet to be convinced there is a strong enough case of national economic importance, when balanced against the risk and disruption they anticipate on matters such as transport impacts, risks of pollution, and on their general health and wellbeing. Although the Scottish Government is confident that an unconventional oil and gas industry would aim to work to the highest environmental, and health and safety standards, it is also our responsibility as a government to make a decision we believe is the best for the people of this country. We must be confident that the choices we make will not compromise health and safety or damage the environment in which we live.
- 6.1.4 The Scottish Government considers the development of an onshore unconventional oil and gas industry in Scotland would make achieving its ambitious energy and climate change commitments even more challenging. Whilst acknowledging the important role of gas in the transition to a low carbon energy future, the addition of an onshore unconventional oil and gas industry would not promote our ability to meet our greenhouse gas emissions targets or objectives in relation to protecting and enhancing the environment. The outcome of our public consultation shows that in those communities most likely to be affected, there are considerable concerns about the potential impacts and disruption that could be caused. It is the Scottish Government's position that notwithstanding the comprehensive consultation procedure, the research we have commissioned, published and considered has not provided a strong enough basis from which to address those communities' concerns.

²² Unconventional oil and gas development: our position (Scottish Government, October 2019) <https://www.gov.scot/publications/scottish-governments-finalised-policy-position-unconventional-oil-gas-development/>

7. Monitoring

- 7.1.1 The 2018 Environmental Report concluded that the effect of the now-finalised policy position would be to avoid the environmental impacts associated with UOG industry in Scotland; therefore no adverse effects are anticipated. Nevertheless, in keeping with the requirements of Section 19 of the 2005 Act the following sections set out our proposed monitoring measures. .
- 7.1.2 There is a strong relationship between the finalised policy position on unconventional oil and gas in Scotland and the Scottish Government's energy policy. As such, the monitoring and reporting mechanism for unforeseen adverse effects will be the Annual Energy Statement which is published by the Scottish Government. This Statement sets out:
- the latest energy statistics;
 - the progress made towards existing targets and the new 2030 targets progress made under each of the six Strategic Priorities;
 - changes within the UK energy market and international frameworks; and
 - an assessment of technological changes and advances with a bearing on Scotland's energy system.
- 7.1.3 The first Annual Energy Statement was published in May 2019²³, prior to the confirmation of the final policy of no support for UOG in Scotland. The 2020 statement will reflect the final policy.
- 7.1.4 Official Statistics on Scotland's greenhouse gas emissions inventory are published annually by the Scottish Government. Independent reports on Scotland's progress in reducing emissions are published annually by the Committee on Climate Change. The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 put into statute the requirement for annual reports on progress against policies and proposals given in the most recent Climate Change Plan. The Act also requires that future Climate Change Plans must include proposals and policies regarding the exploitation of fossil fuels including onshore unconventional oil and gas reserves.
- 7.1.5 The Second SG annual monitoring report on progress to delivering the SG's current Climate Change Plan was published on 17 December 2019. This recent monitoring report shows strong progress in some areas of the 2018 Climate Change Plan. The Climate Change Plan will be updated to ensure the pace of action reflects the increased overall target ambition under the new Climate Change Act. The updated plan is expected to be published in 2020. As part of the update to the Climate Change Plan, the monitoring framework will be reviewed to ensure that this is as effective as possible for keeping track of progress to the increased target ambition.

²³ Annual Energy Statement (Scottish Government, May 2019)
<https://www.gov.scot/publications/annual-energy-statement-2019/>



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