

**Report of the Cabinet Member for Enterprise, Development & Regeneration**

**Extraordinary Council - 10 March 2016**

**PLANNING POLICY CONTEXT FOR THE APPRAISAL OF PLANNING APPLICATIONS FOR ONSHORE UNCONVENTIONAL OIL AND GAS EXPLORATION AND DEVELOPMENT**

<b>Purpose:</b>	To inform Council of the planning policy context for onshore unconventional oil and gas exploration and development.
<b>Policy Framework:</b>	Planning Policy Wales, 8 <sup>th</sup> Edition, 2016. Minerals Technical Aggregate Note 1, 2004. Minerals Technical Aggregate Note 2: Coal, 2009. Policy Clarification Note CL-04-14: Clarification Letter on the national planning policies that apply for onshore unconventional gas and oil development (July 2014). The Town and Country Planning (Notification) (Unconventional Oil and Gas) (Wales) Direction February 2015 and a Ministerial Letter regarding the Welsh Government approach to shale gas applications, August 2015.
<b>Consultation:</b>	Access to Services, Finance, Legal.
<b>Recommendation(s):</b>	It is recommended that: <ol style="list-style-type: none"><li>1) The Deposit LDP contains a minerals policy in accordance with national planning policy and which reflects the Notice of Motion of the 28<sup>th</sup> January 2016 in relation to onshore unconventional oil and gas exploration and development.</li><li>2) That Council writes to the Minister expressing concerns relating to potential environmental impacts of hydraulic fracturing technology and expressing support for a moratorium on the use of hydraulic fracturing techniques for the development of onshore unconventional oil and gas exploration in Wales until such time as the impacts are properly assessed and understood.</li></ol>
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## 1. Introduction

- 1.1 Mineral working is different from other forms of development in that extraction can only take place where the mineral is found to occur. Mineral planning policies are therefore formulated with a view to striking an acceptable balance between the national, regional and local requirement to both develop and safeguard mineral resources, the protection of the natural and built environment and the quality of life for those people living and working within the County.
- 1.2 Public interest in the possible exploration and extraction of onshore oil and gas in the UK is growing. This report is intended to set out the background to onshore unconventional oil and gas development; explain the current situation within the County; outline current national and local development plan policies; and present policies which have been drafted for the forthcoming Deposit Local Development Plan (LDP).

## 2. Background

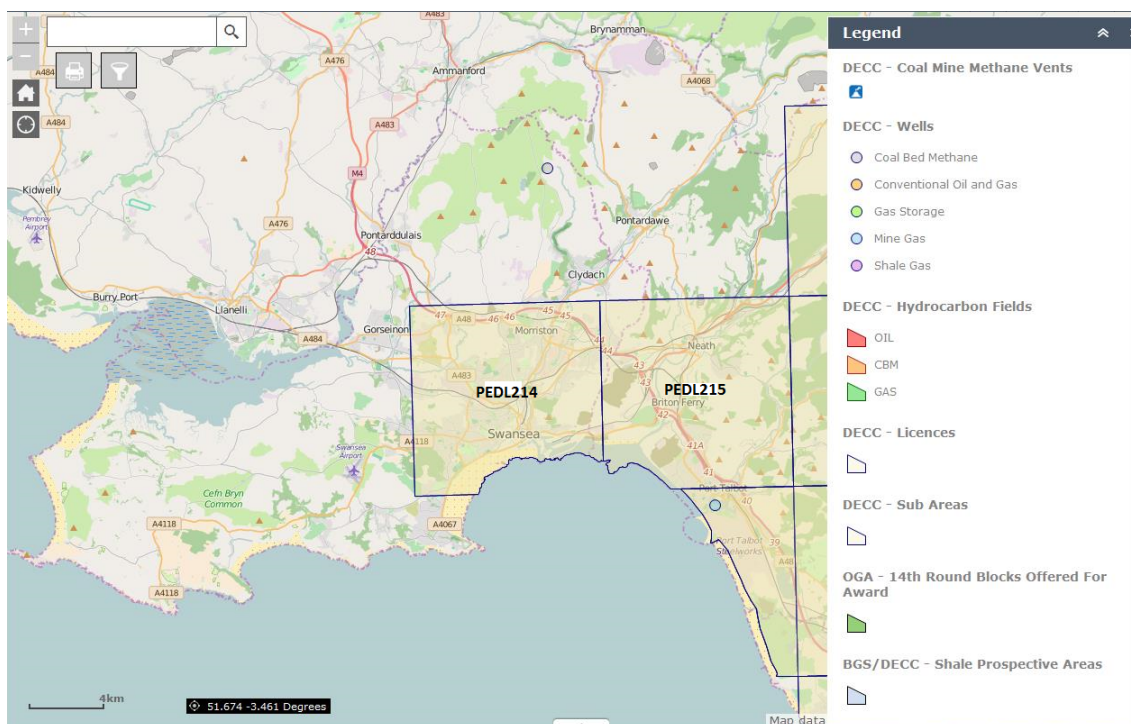
- 2.1 The term 'unconventional gas' refers to natural gas which is trapped in deep underground rocks that are hard to reach, such as shale rock or coal beds. 'Conventional' gas fields are usually situated in easier to reach layers of rock (traditionally North Sea gas is a 'conventional' gas). To date unconventional gas reserves have not been exploited because the cost has been too high, or the technology was not available. However recent technological advances have made it potentially economically viable to extract gas from these sources. Unconventional gas refers to:
- Shale gas
  - Coal bed methane
  - Underground coal gasification
- 2.2 The different sources of unconventional gas mean the type of gases extracted will vary. Shale gas and coal bed gas are mainly methane, like conventional natural gas. However, underground coal gasification produces a mix that can include hydrogen, carbon monoxide and methane.
- 2.3 **Shale gas** refers to gas held in fractures and pore spaces, or gas adsorbed on organic material (the remains of organisms such as plants and animals) within shale rock. It is extracted by cracking the rock using hydraulic fracturing or "fracking". This technique uses fluid, usually water, pumped at high pressure into the rock to create narrow fractures which provide paths for the gas to flow into the production well and then to the surface. Once the fractures have been created, small particles, usually of sand, are pumped into them to keep the fractures open. The fracking water normally contains small quantities of other non-hazardous substances to improve the efficiency of the process. All substances must be approved by Natural Resources Wales.

- 2.4 **Coal bed methane** (CBM) refers to natural gas extracted from unmined coal seams. It is recovered through the drilling of a series of vertical or horizontal wells directly into the coal seam and then pumping water out to release the pressure in a process known as 'dewatering'. Reducing the pressure within the coal seams allows the methane to be released and flow to the production well and then to the surface. This process could also use "fracking" techniques in order to enhance gas recovery.
- 2.5 **Underground coal gasification** (UCG) is the process of partially combusting coal underground to produce a gas comprising of hydrogen, carbon monoxide and methane (known as 'syngas'). The UCG process typically involves drilling two wells into the coal, one for the injection of oxidants to enable combustion (water/air or water/oxygen mixtures) and another well, some distance away, to bring the gas to the surface. UCG development is regulated by the Coal Authority. It does not require a Petroleum Act Licence as methane is not 'petroleum' for the purposes of the Petroleum Act 1998.

### **Petroleum Exploratory and Development License (PEDL)**

- 2.6 The Petroleum Act 1998 vests all rights to the nation's petroleum resources in the Crown, but the Government can grant licences that confer exclusive rights to 'search and bore for and get' petroleum (Petroleum Exploratory and Development License (PEDL)). The granting of a PEDL does not imply that planning permission would be granted for the extraction of the resource, nor does it confer any exemption from other legal/regulatory requirements such as:
- any need to gain access rights from landowners
  - health and safety regulations
- 2.7 A PEDL is not covered by Planning legislation and does not form part of the Local Development Plan (LDP). Two areas of the County are currently under license: Areas 214 and 215 (Figure 1). It is clear that these are within CBM resource areas and are not shale prospective areas. Information regarding licenses can be found on the DECC website at <https://www.gov.uk/oil-and-gas-petroleum-licensing-guidance>
- 2.8 The north and north west of the County was previously under license (PEDL Area 211) but this has been relinquished by Dart Energy due to low prospectivity. Dart Energy published a report in 2013 which provided details of their unconventional UK asset package ([http://nottfoe.gn.apc.org/P213DartUK\(CBM-Shale\)Syn.pdf](http://nottfoe.gn.apc.org/P213DartUK(CBM-Shale)Syn.pdf)). It is clear within the report that the potential resource within PEDL area 211 was CBM and the company does not list any shale gas resource potential in PEDL Area 211.

**Figure 1 Map extract from the Oil and Gas Authority Onshore Oil and Gas Activity Interactive Map**



Source: Oil and Gas Authority. Onshore Oil and Gas Activity Interactive Map  
<https://decc-edu.maps.arcgis.com/apps/webappviewer/index.html?id=29c31fa4b00248418e545d222e57dda>

2.6 The UK Government opened the 14<sup>th</sup> Petroleum Exploratory and Development Licensing Round on the 28<sup>th</sup> July 2014. No new PEDLs were awarded in Scotland or Wales as part of the 14<sup>th</sup> Round as it is proposed that the licensing of onshore oil and gas extraction underlying Wales will be devolved to the Welsh Government.

### **Resource Potential**

2.7 The British Geological Survey (BGS) published a report in 2013 (A Study of Potential Unconventional Gas Resource in Wales) identifying areas where unconventional gas resources may be found at depth in Wales together with estimates of gas-initially-in-place. The report also outlines methods of exploration and development of unconventional gas resources, potential impacts on environment and health and limitations of existing knowledge.

2.8 Given the underlying geology of the County, the BGS report concludes that there *may* be unconventional gas resources at depth. However, due to the large costs involved, not enough research has been conducted to obtain any degree of certainty in relation to the resource potential.

### **3. National and Local Planning Policy**

- 3.1 Currently energy policy is not a devolved matter. Control on development can be exercised via Town and Country Planning legislation. The Welsh Government has adopted a precautionary approach to the development of onshore unconventional oil and gas resources in Wales. Planning policy relating to the development of gas, including unconventional gas (i.e. shale gas and CBM) is contained within Chapter 14 of Planning Policy Wales (PPW), 2016. PPW, together with Policy Clarification Note CL-04-14: Clarification Letter on the national planning policies that apply for onshore unconventional gas and oil development (July 2014), should be taken into account by local planning authorities in Wales when making decisions on applications for unconventional oil and gas proposals.
- 3.2 The Town and Country Planning (Notification) (Unconventional Oil and Gas) (Wales) Direction 2015 requires that where it is proposed to approve a planning application for unconventional oil and gas development which uses hydraulic fracturing technology then the local planning authority must first refer the planning application to Welsh Ministers to determine whether the application should be called in. The Direction clarifies that 'development' is defined as development involving the onshore exploration, appraisal or production of coal bed methane or shale oil or gas using unconventional extraction techniques, including fracturing (but does not include the making of exploratory boreholes which do not involve the carrying out of such unconventional extraction techniques). This is not a moratorium on fracking.
- 3.3 The UK and Welsh Governments produced a 'roadmap' for onshore oil and gas exploration in the UK in December 2013: Onshore Oil and Gas Exploration in the UK: Regulation and Best Practice. Separate documents were produced for Wales, England, Scotland and Ireland, due to different regulatory regimes. The document is an introduction to, and guidance on, planning and permitting. Its content should not, however, be considered as a definitive policy statement. It is intended that the guide will be revised as legislation develops; new regulations are introduced; or when best practice evolves.

#### Current Development Plan Policy

- 3.4 Any planning applications for the exploration or development of unconventional gas or oil within the County would currently be considered under UDP Strategic Policy SP10 which provides the overarching strategic framework for mineral exploration and development together with more detailed Minerals Policies R1 and R3 (CBM).
- 3.5 Policy R1: Development of Mineral Resources supports proposals for mineral development, subject to a number of criteria. Policy R3: Coal Bed Methane supports the exploration, appraisals and development of

the gas, subject to certain criteria. The principle of CBM extraction has long been recognised within the County, subject to environmental safeguards, and CBM policies were previously contained within the West Glamorgan Structure Plan (1996) and Swansea Minerals Local Plan (1999). Although the UDP policy specifically refers to CBM the same principles can be applied to any application for onshore gas.

- 3.6 Any development/extraction proposals would also require permits issued by Natural Resources Wales (NRW) under the Environmental Permitting Regulations, in addition to planning permission, before exploration or production could begin.

### **What is the current situation in Swansea?**

- 3.7 A total of seven applications were received, and granted, for test drilling for CBM in 2008 and 2009 (in Pontarddulais and Mawr wards). An application was granted in 2013 for an appraisal borehole for CBM exploration at Llys Nini and a further application was granted in 2015 for the drilling of an appraisal borehole for the purpose of CBM exploration. The latter two applications were sought in order to meet the commitments of the associated PEDL Area 214.

- 3.8 The above permissions relate to CBM, not shale gas, and permit exploratory drill holes only. Any proposals relating to gas found would be subject to planning control by way of further planning applications, but none have been received to date.

### **What Policies will be contained within the Local Development Plan?**

#### The LDP Preferred Strategy

- 3.9 Policy 15 of the LDP Preferred Strategy provided an overarching strategic policy relating to mineral resources, including onshore oil and gas resources.

#### The Deposit Plan

- 3.10 As the County contains two PEDL areas, unconventional gas and oil exploration is an issue which should be addressed via local planning policy. The LDP must be in accordance with national policy but should not replicate it. Following advice from the Welsh Government and lessons learned from other Welsh Authorities during the adoption of their LDP's, reference to onshore oil and gas exploration must be made within a general 'overarching' mineral policy within the LDP, rather than a separate policy as in the UDP.

- 3.11 Should the Council wish to present a policy within the Deposit LDP which differs from national planning guidance in relation to the exploration and development of onshore oil and gas it must be noted that this will generate objections from the Welsh Government. Any policy will in any

event be considered by the Planning Inspectorate at the LDP Examination in Public to ensure it accords with national planning policy.

- 3.12 Carmarthenshire County Council included a specific policy in relation to the exploration and development of onshore oil and gas in their Deposit LDP. Following advice from the Welsh Government this was removed at examination and reference to onshore oil and gas was included within a single mineral development policy in the adopted LDP. To date no planning applications for exploratory gas boreholes have been received by Carmarthenshire County Council.
- 3.13 Neath Port Talbot County Borough Council have a single policy within their adopted LDP outlining criteria against which mineral development proposals will be assessed. This includes proposals for the exploration and development of unconventional oil and gas. Since 2003 Neath Port Talbot Council have approved 10 planning applications for exploratory gas boreholes and refused 1. The majority of these applications have been to test for CBM gas. Most recently, an application was approved in 2015 for an exploratory gas borehole to test for CBM and shale gasses in Foel Fynyddau Forest, Pontrhydyfen.

### **Stance of Other Local Planning Authorities**

- 3.14 A number of Welsh Local Planning Authorities have taken a position on the issue of onshore unconventional oil and gas development:
- 3.15 Denbighshire: The Council adopted a corporate position in September 2015 in relation to unconventional gas production:  
*“This Council has concerns over Fracking (hydraulic fracturing) and other alternative technologies for Unconventional Gas production, and would support the current Welsh Government moratorium on not proceeding with any form of development in this county or the wider region until such time as proper evidence has been accumulated on the long term effects of these new technologies and recognise the need to consider all options for energy production taking in to account the depletion of fossil fuels”.*
- 3.16 Denbighshire’s LDP was adopted in June 2013 and the mineral policies do not reflect the Council’s position. Notwithstanding the adopted Council position, any planning application in relation to unconventional gas production will be considered on its merits against national policy and the adopted LDP planning policy.
- 3.17 Monmouthshire: Council resolved in Feb 2015 to support an immediate moratorium on fracking in Wales.  
*“This Council supports an immediate moratorium on fracking in Wales. We note that a small part of South West Monmouthshire has Petroleum Exploration and Development Licences (PEDLS) on it and the 14<sup>th</sup> licence round covers a large part of Monmouthshire. By supporting a moratorium, the Council sends a clear message that we wish to pause*

*which will allow the impact on our environment and homes to be properly assessed and understood.”*

- 3.18 The Monmouthshire LDP was adopted in 2014 and contains policies in relation to mineral development. No specific policy is included in relation to onshore oil and gas.
- 3.19 Ceredigion: Declared itself a ‘frack-free’ local authority in January 2015. *“As a council which is leading on the use of renewable energy and energy conservation, we believe that Hydraulic Fracturing, Coal Bed Methane and Underground Coal Gasification (commonly referred to as ‘Fracking’) are incompatible with Ceredigion’s energy strategy as well as arousing considerable public concern. Having received a large petition from Ceredigion residents to this effect, we are happy to declare that we will not support fracking within the county and are therefore pleased to declare Ceredigion a Frack-free Local Authority. We hope that our commitment to a cleaner energy future will show the rest of Wales how important it is to protect our environment for future generations and to allow us to stand together with other forward thinking Local Authorities”.*
- 3.20 Ceredigion’s LDP was adopted in 2013 and does not contain reference to unconventional oil and gas within mineral policy. The Council’s frack-free declaration confusingly refers to all methods of extraction as fracking which they are not (UCG does not use hydraulic fracturing technology). This declaration has no bearing on the determination of any planning applications be received. Only national and LDP planning policy may be taken into account as material planning considerations.

#### **4. Conclusions**

- 4.1 To date, there has been no commercial interest to explore and develop shale gas within the County. However interest has been shown in CBM gas potential, with the submission and approval of a number of planning applications for exploratory boreholes, though there is uncertainty as to the actual potential resource available.
- 4.2 LDP policies must reflect national policy and current Welsh national planning policy does not prevent the exploration and extraction of onshore unconventional gas and oil resources, subject to safeguards. Any attempt to introduce a specific policy on the issue within the Deposit LDP will most likely be removed by the Planning Inspectorate. Neath Port Talbot County Borough Council’s LDP has recently been considered by a Planning Inspector and includes a mineral development policy which includes reference to onshore oil and gas exploration and development, in accordance with national planning policy. The City and County of Swansea Deposit LDP should include a policy which reflects national planning guidance.



4.3 However the Council, if it so wished, could make a statement similar to Monmouth's seeking a moratorium on the use of hydraulic fracturing technologies throughout Wales until impacts are properly assessed and understood.

4.4 The Council adopted a Notion of Motion on the 28<sup>th</sup> January 2016 to adopt a policy which would contain a presumption that as a matter of planning policy it would not support applications for the unconventional exploration or extraction of gas within the County, including test drilling. A policy (M1) has therefore been drafted for inclusion within the Deposit LDP in accordance with the Notion of Motion. Appendix A contains an extract of the minerals policy chapter, including the Introduction, Key Policy, Policy M1 and the accompanying reasoned justification.

## **5. Equality and Engagement Implications**

5.1 There are no equality and engagement implications associated with this report.

## **6. Financial Implications**

6.1 There are no financial implications associated with this report.

## **7. Legal Implications**

7.1 There are no legal implications associated with this report other than reference to The Town and Country Planning (Notification) (Unconventional Oil and Gas) (Wales) Direction in clause 3.2.

### **Background Papers:**

Welsh Government. 2016. Planning Policy Wales, edition 8.

Welsh Government. 2014. Policy Clarification Note CL-04-14: Clarification Letter on the national planning policies that apply for onshore unconventional gas and oil development.

Welsh Government. 2015. The Town and Country Planning (Notification) (Unconventional Oil and Gas) (Wales) Direction.

Welsh Government. 2015. Ministerial Letter regarding the Welsh Government approach to shale gas applications.

BGS. 2013. A Study of Potential Unconventional Gas Resource in Wales.

Howe, Harriet. 2015. Unconventional Gas: Shale Gas and Coal-bed Methane. National Assembly for Wales Research Paper.

### **Appendices:**

<b>Appendix A</b>	Extract of Proposed Mineral Policies for the Deposit LDP
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