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Briefing: Shale Gas Governance: devolution and localism

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Matthew Cotton, School of Social Sciences, Humanities and Law, Teesside University

Adrian Gonzalez, School of Environment and Geography, University of York

Jennifer Dickie, Biological and Environmental Sciences, University of Stirling University



Summary of Key Findings

- ▶ Unconventional hydrocarbon exploration and development (UHED) is considered as a matter of environmental governance – concerning the levels and scale of government, decision-making and policy mechanisms across the UK.
- ▶ Devolved Administrations have different powers and responsibilities towards UHED and have adopted different stances at different times.
- ▶ The UK Government adopted three distinct policy approaches. First, *precaution* after seismic activity was reported in 2012 following test drilling by Cuadrilla. Second was *promotion* when the Coalition and subsequent Conservative Governments developed supportive economic and regulatory policy instruments to support development. The third is *abatement* at the point where the potential future breach of seismic activity limits led to an effective moratorium on UHED.
- ▶ The promotion phase was supported by supply push mechanisms (to encourage development such as business rate recovery to local councils) and demand pull mechanisms (to encourage community uptake, including the Shale Wealth Fund and distribution of profits to local communities).
- ▶ Devolved administrations have now converged on a moratorium consensus, though the justification differs between component countries. The UK government relies upon technical justification (seismic activity), Scotland and Wales more strongly emphasise public opinion and consultation responses.
- ▶ Shale gas has been stuck between planning processes for Nationally Significant Infrastructure and local planning authority consents and democratic control at the most local level. The failure to capture the appropriate scale of shale gas planning hastened the demise of the industry.

Introduction

This briefing note discusses the issue of unconventional hydrocarbon exploration and development (hereafter UHED) as an issue of governance and political scale – concerning the levels of government, decision-making powers and responsibilities surrounding shale gas policy and planning in the UK. The shale gas challenge in the UK, as is common with many other environmental and energy policy challenges, involves the negotiation of different interests across multiple sectors of society in order to achieve policy success. Understanding the different scales of decision-making (see Box 1 for discussion of core terms) is important for effective environmental governance because many different parties and interests must negotiate a politically acceptable form of action, and each represents a different jurisdiction/constituency/network, and so on. A different type of management at one scale may bring about unforeseen changes at another. An understanding of scale is therefore important when tackling an issue like UHED in order to avoid overly simplistic “one-size-fits-all” recommendations (Ostrom, 2009) that lead to policy failure, social unrest, and distrust in decision-making institutions.

In this briefing paper UHED is approached as a scale problem in two ways – the first is on a *temporal scale* (across time periods), in a manner that complements the briefing note of Williams et al. (2020), showing the different approaches adopted by government authorities and the critical points at which these changed. The second, is the *governance scale* considered here at two levels – first relating to the relationship between the UK Government and Devolved Administrations, and the second between UK Government policy and local/regional tiers of government through the *localist* policy agenda espoused by the Coalition and subsequent Conservative governments.

Shale Gas Policy Changes Over Time – precaution, promotion and abatement

The technique of hydraulic fracturing for oil and gas is well established in the oil and gas industry, though advances in horizontal drilling technology combined with other cost saving measures allowed UHED through so-called ‘fracking’ of shales, tight sands and coalbeds to become commercially successful first in the USA, Canada and Australia; and encouraged the UK to explore this as an energy policy priority in 2010 (Rogers, 2011). The political significance of this move came in August 2010 when the onshore gas exploration and development company Cuadrilla started drilling Britain’s first shale gas exploration well, the Preese-Hall-1, and hydraulically fracturing the well in spring 2011. The operation triggered two seismic events of magnitudes (M_L) 2.3 and 1.5, leading to an initial moratorium on activity in April 2011 to December 2012. This moratorium characterises the first distinct period of contemporary UK shale gas policy described here as the *precautionary* phase. The UK Conservative-Liberal Democrat Coalition Government was mindful of social activism and protest emerging in the United States around the rapid expansion of the shale gas industry and wanted to ensure public confidence in the socio-economic and environmental benefits of shale gas. The proposed solution was, however, what social scientists of science and technology call a *technocratic* policy response, in the sense that decision-making was driven principally by engineering expert opinion upon the seismic activity. Policy was heavily influenced by the Royal Society and Royal Academy of Engineering report into the control of seismic impacts (Bickle et al., 2012) and

Box 1. Core concepts

Scale – a form of political hierarchy that is not separate or discrete but interconnected; for example when discussing the local, the national, or global economy. Scales are often treated as discrete and separate as they are bounded by political jurisdictions (e.g. a local planning authority), or because they have specific borders (e.g. a constituency). However, for many environmental issues the movement of things (money, natural resources, pollutants, people etc) expand across and negotiates around, scale – making the boundaries porous.

Devolution – refers to the delegation and transfer of political powers to either lower tiers of government (such as from central to regional authorities) or to different political jurisdictions, such as the formation of sub-national, or sub-federal level administrations. In the UK devolution involves the granting of self-government to the Scottish Parliament, Welsh Parliament, Northern Ireland Assembly and the London Assembly alongside executive bodies – the Scottish Government, Welsh Government, Northern Ireland Executive and for England specifically the Greater London Authority and combined authorities.

Localism – refers to a range of political philosophies that emphasise the importance of 'the local'. Usually localism refers to systems of political control that prioritise the smallest units of government – including direct decision-making by citizens through active participation in community planning and policy-making. It can therefore refer to a systematic approach to political organisation – whereby local autonomy is prioritised over a centralized government, either through devolving power to local/regional authorities (such as city mayors), or directly empowering citizen groups to run public services through private ownership. There are multiple and competing definitions that make localism in policy-making a highly 'plastic' concept, open to interpretation.

Governance – describes the way in which political processes are maintained or changed in and between both formal and informal institutions. For example the relationship between Westminster and White Hall, between ministers and civil servants is an example of governance. Environmental governance commonly involves a range of different authorities including national, supranational and non-governmental authorities, and increasingly the involvement of the public in decision-making processes through *deliberative processes*. A key example of the latter is the UK National Climate Assembly.

the subsequent tightening of regulatory controls over seismic activity (Green et al., 2012), as a means to provide public reassurance. The decision was technocratic, because at this stage no other stakeholders were consulted on the social impacts of allowing UHED to continue in the affected regions.

Once a control mechanism for the monitoring of seismic activity was put in place, the government moved quickly to establish a new policy platform. The Conservative-Liberal Democrat Coalition in 2012, and subsequent Conservative Governments shifted to a second phase – described here as a *promoter* stance towards UHED (Cameron, 2013; Macalister and Harvey, 2013). The promoter phase describes a strategic policy platform designed to support industry development and expansion, and to create a domestic market for unconventional hydrocarbons in the UK. The UK Government's promoter stance towards UHED between 2012 and 2019 involved different forms of incentives. The Conservative-Liberal Democrat and Conservative Governments adopted four principal policy mechanisms within this broader strategy:

1. *Supply push* – to encourage industry growth by providing a favourable planning and investment environment. Policy approaches include, for example: providing 100% business rate recovery for local councils for shale gas development. Tax incentivisation mechanisms were aimed at encouraging uptake of exploration licenses at the scale of local government decision-making, in part under conditions of economic uncertainty and austerity that depleted local government funds in many UHED-affected regions (Cotton, 2017).
2. *Demand pull* – to encourage market uptake (for example Weijermars and McCredie, 2011), for example by providing economic incentivisation to shale gas-affected communities and by emphasising its advantages including: domestic energy affordability from lower gas prices to reduce domestic heating costs, improved national energy security in the face of geopolitical concerns over gas availability in Europe (Boersma and Johnson, 2012; Williams and Sovacool, 2020), and improved air quality and lower carbon emissions when transitioning away from black carbon sources (e.g. coal/lignite) towards natural gas (see for example Burnham et al., 2012; Jenner and Lamadrid, 2013).

3. *Promote social engagement* – efforts to encourage public acceptance of UHED at both national and local-regional scales through what is often referred to as *social license to operate* – a trust relationship built between developer and affected community that allows politically 'frictionless' extractive operations (Bradshaw and Waite, 2017; Smith and Richards, 2015). Social engagement with community groups emphasised the local-regional economic benefits to shale gas-abundant communities from job creation and so-called up-skilling for marginalised and peripheral communities affected by fracking development (such as the Blackpool and Fylde College fracking training centre) (DECC, 2014), as well as community regeneration benefits from shared proceeds amongst producer communities from a proposed shale wealth fund (HM Treasury, 2016; UKOOG, 2013) – exploration/testing stage to provide £100,000 in community benefits per well-site where fracturing takes place, followed by 1% of revenues to communities at the production stage (DECC, 2014). The shale wealth fund amounted to a £10,000,000 windfall for affected communities – and was designed to improve community relations, and stimulate acceptance locally by encouraging expenditure on facilities such as play parks, community sports facilities, libraries, heritage restoration and local transportation (HM Treasury and Andrew Jones MP, 2017) – a mechanism to distribute the profits of individual wells to local communities was introduced to counter negative socio-economic impacts and promote public confidence (HM Treasury, 2013, 2016; Rabe and Hampton, 2016).

4. *Assurance through regulation* – the emphasis in government public communications strategy was to emphasise a 'robust' regulatory system with multiple layers of consents in order to ensure work place health and safety, seismic monitoring and environmental protection (Hawkins, 2020; Kotsakis, 2012) in order to provide confidence to broader civil society actors that the technology was safe. A consultation on changes in planning laws to speed up the development of an 'exploratory phase' of UHED by bringing regulations in line with 'permitted development', and secondly to move the 'production phase' within the Nationally Significant Infrastructure Projects (NSIP) regime under the Planning Act 2008 and Localism Act 2011 was mooted, though ultimately this policy action was not taken forward (discussed below); and later abandoned at the point when the moratorium was introduced.

UHED has been extensively studied in terms of public perceptions, media portrayals and policy approaches (Bomberg, 2017; Clarke et al., 2015; Cotton et al., 2019; Hilson, 2015; Jaspal and Nerlich, 2014; Jaspal et al., 2014; McNally et al., 2018b; Szolucha, 2018; Williams and Sovacool, 2019, 2020). Assessment of this literature shows how during the promoter phase, the UK Government attempted to stimulate both industry development and local community social acceptance of the technology at the same time (notably: Cameron, 2013; Macalister and Harvey, 2013). However, as UHED companies began exploratory actions in the northwest of England and the Government embarked upon a pro-shale gas policy platform, this stimulated early negative national news reporting and the rapid establishment of globally-connected environmental activism networks in the UK. These new networks of anti-shale gas political action were assisted by burgeoning social media. Concerns over local environmental impacts predominantly expressed in North America quickly filtered into UK national news, with UHED companies such as Cuadrilla quickly labelled as an environmental and socio-economic *threat* to communities (Jaspal and Nerlich, 2014), spurred by popular media portrayals of environmental risks, including (but not limited to) the Gasland™ (Fox, 2011) documentary from the USA. Collectively, the dissemination of global experiences of local fracking impacts helped to mobilise anti-fracking collective action in the UK (Bridge, 2012; Singer, 2019). This social activism that then emerged at proposed shale gas exploration sites then prompted further negative media reporting of the industry (Bomberg, 2017; Cotton et al., 2014; Evensen, 2018; McNally et al., 2018a; Whitmarsh et al., 2015). New groups such as Frack Off became influential in shaping the public attitudes (Neil et al., 2018) in defining both the nature of 'the problem of fracking' and resultant policy solutions; which, in turn have influenced policy-makers' perceptions of UHED and of politically acceptable decision-making outcomes (Bomberg, 2017; Cotton et al., 2014; Wagner, 2014).

Political opposition to UHED is place-based, in the sense that it has often centred around sites where Petroleum Exploration and Development Licences (PEDLs) have been granted and exploration companies such as Cuadrilla, iGas and INEOS have sought planning consents for drilling operations. The social activism of anti-fracking protest and direct-action campaigns in Barton Moss in Salford, Preston New Road in Lancashire, Kirby Misperton in North Yorkshire, and Balcombe in Sussex, was facilitated by intense online information exchange and social learning across activist networks, integrated with on the ground protest and direct-action campaigns (Brock, 2020; Muncie, 2020; Rattle et al., 2020). National energy policy strategy is influenced by local politics, including amongst communities that develop in opposition to fracking, because this is the arena through which regulatory and technical dimensions to fracking are being contested and scrutinised (Beebejaun, 2017). Government measures to incentivise UHED have persistently failed to foster what social scientists term a local *social license to operate* – i.e. UHED are not trusted to act in the best interests of the communities in which they develop and extract resources (Bradshaw and Waite, 2017; Luke et al., 2018). As a result, UK Government support for shale gas as a national policy priority has proven to be politically costly at the sub-national and

local level where UHED was proposed or taking place. Moreover, though physical proximity to operations remains a key factor influencing opposition to UHED technology (Craig et al., 2019) local protest actions and negative media reporting have stimulated a demonstrable decline in national public support for UHED over time (Macnaghten, 2017; O'Hara et al., 2014; Whitmarsh et al., 2015). The Department of Business, Energy and Industrial Strategy (DBEIS) tracks public attitudes to energy and environmental topics through waves of public 'tracker' surveys. By late 2019 the survey showed that 44% of respondents opposed UHED compared to 11% supporting it (DBEIS, 2019a), the lowest reported support figures since the survey began. However, these numbers shifted more in favour of UHED the following year, with 36% opposition and 24% support reported 12 months later (DBEIS, 2020). It is notable, however, that at the time of writing, the technology does not currently enjoy popular public support.

The sustained social opposition to shale gas well sites (notably at Preston New Road in Lancashire and Kirby Misperton in North Yorkshire) and declining levels of broader public support for UHED was consolidated in 2019 in Lancashire when a magnitude 2.9 earthquake was recorded. An interim report by the Oil and Gas Authority found challenges in predicting the probability and magnitude of future seismic activity linked to UHED operations (OGA, 2019a, b), and as such, the Conservative Government withdrew presumptive support for hydraulic fracturing license applications in the UK, effectively instigating a moratorium on further UHED. This policy shift described by Labour opposition at the time as a policy U-turn (Ambrose, 2019) and election ploy (Cowburn, 2019). Upon a strengthened majority in the 2019 General Election in June 2020, then Conservative UK Energy Minister Kwasi Kwarteng MP stated in a BBC interview (cited in Hayhurst, 2020):

"We had a moratorium on fracking last year and frankly the debate's moved on. It is not something that we're looking to do. We've always said we'd be evidence-backed, so if there was a time when the science evidence changed our minds, we would be open to that. But for now, fracking is over."

The term "fracking is over" is politically significant because it signals a formal shift in policy strategy – from promotion to the third and current phase – *abatement*, characterised by a moratorium towards new development, and a clear signal to energy developers that previous government support for UHED is now withdrawn. This position is a clear reversal of the promoter phase, and hence described as a policy U-turn. There are multiple factors that lead to this abatement stance. These are discussed in the following sections relating to two core elements:

1. Convergence of policy (moratorium stance) across Devolved Administrations
2. Localism – governance across national and local government scales

1. Convergence of Policy (moratorium stance) across Devolved Administrations

Devolution in the United Kingdom

Devolution is deeply significant to UHED politics – with impacts felt across energy and environmental policy, planning systems and industrial strategy within the United Kingdom. Political devolution in the UK creates what is termed the *plurinational* state – whereby decision-making power shifts towards the subnational authorities, which in turn gain greater autonomy, specifically over planning, tax and energy policy as they relate to UHED. Box 2 describes the broad range of powers distributed across the Devolved Administrations and the broad areas of policy-making control.

Box 2. Devolved Government powers in the UK

Government has two primary functions – the Legislature (that makes laws), and the Executive (that puts them into effect). In the UK there are four different legislatures and executives with differing functions and powers:

Executive Powers	Legislative Powers
UK Government	UK Parliament
Scottish Government	Scottish Parliament
Welsh Government	National Assembly for Wales
Northern Ireland Executive	Northern Ireland Assembly

Coordination of Executive functions across Devolved Administrations occurs formally through meetings of the Joint Ministerial Committee, through informal discussions and correspondence between counterparts guided by a Memorandum of Understanding and Devolution Guidance Notes, and through coordinated Civil Service action that promotes common professional standards, complementary approaches to policy making and lines of communication.

Devolved Administrations have Executive and Legislative powers over a range of policy areas including health and social care, education and training, local government, agriculture, forestry and fisheries, transport, justice and policing, sports and the arts. Some powers over taxation and social security are devolved. The UK government retains powers for defence, immigration, trade policy, foreign affairs and constitutional affairs.

Energy and environmental policy is a complex area for devolved power sharing, influenced by a range of overlapping areas of planning policy, climate legislation, taxation and industrial strategy, as discussed in this briefing paper.

Devolution has a complex political history, beyond the scope of this brief; however, it is important to note that up to the point at which the Labour Party entered power in 1997, the UK as a whole had a unified planning system and a shared energy policy framework, with only minor differences in planning experienced in Scotland and Northern Ireland. Despite the devolution of planning powers to Scotland, Wales and Northern Ireland (and to a lesser extent, London and now regional authorities through elected mayors) policy divergence through devolution was minimal until the then Labour Government enacted The Planning Act 2008, and then the Coalition Government enacted the Localism Act 2011 (discussed in Box 3 and in the following Localism section). These two pieces of legislation are significant because they reveal a departure from the relatively stable spatial planning and sustainable development policy broadly shared by all administrations (Power and Cowell, 2012), in favour of an “anti-planning discourse” that portrays the planning system as a key obstacle to economic recovery following the 2008-09 financial crisis.

Though broader shifts in the planning system have affected the UK as a whole, Devolved Administrations have developed sub-national energy policy strategies and targets within this shift – specifically regarding renewable energy development in the context of sustainable transitions. However, as Cowell et al. (2017) note, the effectiveness of energy policy changes across the Devolved Administrations largely depends on UK-wide systems of subsidy, shared support for a system of large-scale energy technology platforms, and the centralisation and expediting of planning consents. In short, across each of the component administrations there is a move to produce large-scale power stations, large-scale renewable projects (particularly in the Scottish case for offshore wind developments) and nationalised infrastructure for electricity and gas transmission, whilst drawing planning powers away from local planning systems towards central authorities. All Devolved Administrations have therefore encountered challenges related to the contradiction between national and

local scales of planning policy. What differed (up to the November 2019 decision in England for a UK wide moratorium, and the decision in 2020 to uphold that continued approach) was the stance on UHED, specifically, as an energy policy strategy with Scottish, Welsh and Northern Irish devolved administrations breaking away from the Coalition/Conservative government policy strategy in a number of crucial respects. The connections between territories, regional boundaries and tiers of government authority make the policy landscape highly complex. This is because devolved Administrations in the UK typically have since drawn UHED and other aspects of energy policy into a platform of *nationalist* politics (specifically in Scotland) (Heffron and Nuttall, 2017; Stephan, 2017); and so too the Westminster government has drawn UHED into electoral politics within England (Cowburn, 2019). UHED has thus become politicised as a form of electoral politics, with "for-or-against fracking" used as a political platform for election campaigning across the parties (Dodsworth, 2017).

UK Government Powers

The primary policy mechanism relevant to individual shale gas sites is the Petroleum Exploration and Development Licence (PEDL). PEDLs were granted to companies pursuing a range of oil and gas exploration activities, subject to necessary drilling/development consents and planning permission. The PEDL licenses were awarded across 230 onshore licence areas, covering a total of 529 blocks (UKOOG, 2019). The UK Government retained overall responsibility for the fiscal regime and regulation of the oil and gas industry. In 2015 the Oil and Gas Authority (OGA) was created to act as the sector's independent regulator: to "regulate, influence and promote the oil and gas industry, in order to maximise the economic recovery of the UK's oil and gas resources." The OGA regulates the licensing of exploration and development of the UK's offshore and onshore oil and gas resources, gas storage and unloading activities. This then relates to prevailing legislation - The Petroleum Act 1998 confers all rights to the UK's petroleum resources to the Crown, since 2015 the OGA is able to grant licences that confer exclusive rights to search, bore for and retrieve gas and petroleum, over a limited area for a limited time. Though this provides national levels of control, this too has become a devolved matter. For example, The Scotland Act 2016 confers onshore oil and gas licensing powers, which were devolved on 9th February 2018. Commencement of sections 47 to 49 of the Scotland Act 2016 transferred powers to legislate for the granting and regulation of onshore licences, determine the terms and conditions of licences, and to regulate the licensing process, including administration of existing onshore licences.

The regulation of unconventional oil and gas through fracking overlaps with that of conventional oil and gas. The Petroleum Act 1998 established a licensing system whereby companies wanting to conduct offshore, or onshore exploration and production would apply for a Petroleum Exploration and Development License (PEDL). Until very recently, the Department of Energy and Climate Change (DECC, now the Department for Business, Energy and Industrial Strategy, DBEIS) was responsible for formulating the UK's energy policy and for administering and enforcing the fracking regulatory system (Priestley, 2018). However, in 2015 a new regulator, the Oil and Gas Authority (OGA) was created to oversee the oil and gas industry, including shale gas. Initially, the OGA was located within the Department for Energy and Climate Change as an executive agency until the Energy Bill 2015-16 established it as an independent regulator from 2016. It had the power, alongside the Secretary of State for awarding onshore and offshore oil and gas licenses. Whilst the devolved administrations had the power to award onshore licenses (and do so in a similar manner to that of the UK Government), Westminster retains the right to grant offshore contracts. This situation led to Wales and Scotland suspending onshore oil and gas contracts but witnessing offshore expansion and exploration in their territorial waters.

Devolved Powers

As shown in Box 2, The Scottish Parliament and Welsh and Northern Ireland Assemblies have a varying range of legally devolved powers on matters including education, employment, the environment, healthcare and transport. Shale gas as an environmental, planning and energy policy issue has recently become a devolved matter in its own right. The OGA's short-term governance of oil and gas in particular has been affected by devolution. The Scotland Act 2016 and the Wales Act 2017 transferred onshore petroleum licensing to the Scottish Parliament and the Welsh Assembly and their respective ministers. It is notable that Northern Ireland's UHED regulation remains a matter of Westminster control. The Petroleum (Production) Act (Northern Ireland) 1964 had already granted Stormont the legal power to award onshore oil and gas licenses, making it the first part of the UK to gain these devolved powers (Priestley, 2018). In this context, there are evidently commonalities and differences in the regulation of unconventional oil and gas.

Across all the UK Government and Devolved Administrations, an almost identical planning process across the five themes is followed, before commencing onshore oil and gas development. Operators wishing to drill a well must obtain a license from the relevant government body; the OGA in England, the Energy and Climate Change Directorate in Scotland, the Minister for Environment Energy and Rural Affairs in Wales and the Department of Enterprise, Trade and Investment in Northern Ireland (OGA n.d.; NI.Gov n.d.; The Scottish Government n.d.; Welsh Government n.d.). Operators must

then negotiate access with landowners. Planning permission must be sought from the local minerals planning authority (MPA), the local planning authority (LPA) if in Scotland or the Department of Environment Planning (DOE) (now, the Department for the Economy). Operators must then consult the several relevant bodies including environmental agency; the Environmental Agency (EA) in England, Scottish Environment Protection Agency (SEPA) in Scotland, Natural Resources Wales (NRW) in Wales; or the Northern Ireland Environment Agency (NIEA) in Northern Ireland, to establish the necessary permits and authorisations for the operation. Applications are only granted if the relevant agency is confident that impacts to the environment have been ameliorated in a manner compliant with relevant legislation. All four Administrations adhere to ISO 14001, the international standard for environmental management systems (nqa n.d.).

There are also a number of additional permitting-relevant bodies that require notification, notably The British Geological Survey (BGS) or the Geological Survey of Northern Ireland (GSNI) must be notified of the intent to drill. The safety of the well design is scrutinised by the Health and Safety Executive (HSE) or Health and Safety Executive Northern Ireland (HSENI) who must be satisfied with the well design. The operator must also arrange an examination of the well design by an independent and competent well examiner. An environmental permit is required from the relevant environmental agency for any borehole drilling as well as fracking activities. The Health and Safety Executive or Health and Safety Executive Northern Ireland then monitor the well's progress with these bodies notified of any unplanned events. If necessary, these bodies will also carry out on-site inspections of specific well operations (Gov.UK 2013b).

Overall the structures of permitting process are relatively standardised across the devolved administrations, with broadly comparable levels and types of permits and consents required in each country, with the authority for permitting differing between each country. Nevertheless, there are some notable differences. In England, Scotland and Wales for example, the environmental risk assessment is a first stage process and is conducted, as a matter of good practice, whenever UHED is planned. In Northern Ireland however, this process comes after the Department of Enterprise, Trade and Investment have approved the drilling operator. Whilst operator approval does not invalidate the environmental risk assessment, it does suggest de facto approval of the operation (ibid.,).

Similarly, in England, Scotland and Wales, a pre-application consultation takes places with the local minerals planning authority and other key consultees (principally, water and energy suppliers). This incorporates discussions on issues such as noise pollution, ecology, archaeological and visual impact and site access. However, the planning process in Northern Ireland does not require these discussions on operational best practices. However, the biggest changes to the UK UHED context have been the Devolved Administrations political response to their new powers and the process of fracking.

England

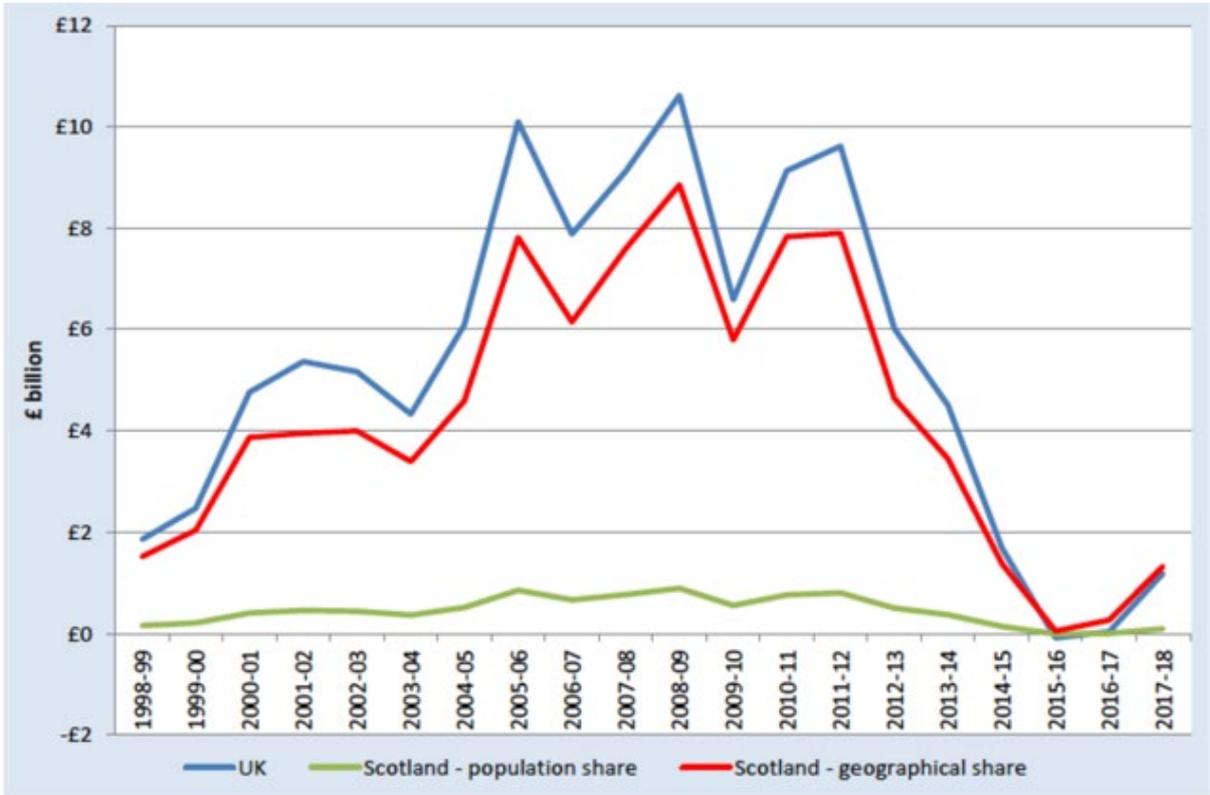
England had, until November 2019, the only onshore operational fracking site in the UK situated near Little Plumpton in Lancashire. The test well, operated by Cuadrilla since 2011, was forced to halt operations on numerous occasions due to breaching seismic activity regulations, most recently in August 2019 when an earthquake with a magnitude of 2.9 was recorded (BBC News, 2018a; 2019a; Gavell, 2019). The UK Government's response was initially to consider relaxing the safeguards which are designed to halt production when these earthquake events occur (Ambrose, 2019), though these relatively strict controls have remained in place. Cuadrilla indicated that it would test for gas at a second well on the site but would not start testing until the OGA investigation into the recent seismic activity have been completed. Outside of Lancashire, England was witnessing further exploratory work to expand the nation's operational sites. In June 2019, exploratory investigations uncovered the UK's largest onshore gas field at West Newton in East Yorkshire (Winter 2019) whilst several other firms held Government licenses to start shale gas exploration in the region (Burn 2019). In August 2019 a magnitude-2.9 quake close to Blackpool was attributed to UHED operations by Cuadrilla prompting an investigation and interim report by the UK OGA (OGA, 2019a). The report concluded that in the future, larger tremors couldn't be ruled out, which could cause unacceptable "damage and disturbance" to local infrastructure including roads and buildings. Then Business Secretary Andrea Leadsom MP stated that the report made it "clear that we cannot rule out future unacceptable impacts on the local community". It is this OGA report that established the political grounds for a moratorium in England. On the face of it, the seismic activity generated by shale gas activity is the principal concern that justifies continuation of the UK moratorium, and hence the June 2020 statement that the conversation on fracking had 'moved on' in England in absence of further scientific evidence to support safe UHED.

Scotland

Despite devolution, Scotland has relatively limited powers within the overall energy policy domain (Cairney et al., 2019). In Scotland one key policy factor relating to UHED was The Scotland Act 2012 that provided the Scottish Government with new tax powers, allowing greater opportunity for the Scottish authorities to raise public funds and pursue a domestic policy agenda primarily focussed upon transport, social welfare, and healthcare spending. However the Scotland Act 2012

only allowed greater control over public spending within Scotland, though this remained within budgetary constraints set by Westminster, tax and spend policy had to take place within the context of a balanced budget – there remained therefore a considerable vertical fiscal imbalance (revenues do not match expenditures across the different levels of government – with Scotland spending proportionally more than the HM Government). This made the issue of oil and gas revenues a highly politicised matter, particularly during debates within the Scottish Independence Referendum campaign in 2015. Offshore oil and gas revenues are defined geographically, with North Sea oil and gas predominantly falling within Scottish territorial control. The tax revenue that this would provide to an independent Scotland was a key pro-independence policy platform, though as noted by the Scottish government in Figure 1, these revenues remain in overall decline (though notably with evidence of some recovery as global oil and gas prices have returned to a bull market). The Independence Referendum is significant, because as Stephan (2017) notes, the Scottish Government’s initial reaction to domestic UHED was a cautious “evidence-based approach” - following closely scientific evaluation of the environmental impacts of shale gas based upon ongoing review of international evidence and response to central UK Government policy. This is significant in relation to Reap’s (2015) analysis, that shows the UK government has largely positioned UHED governance in relation to the regulatory and industry practices prevalent in the USA. However, differences in population density and the prevailing geological conditions in the UK, mean that the public health impacts recorded in the USA cannot be directly extrapolated to the UK, and yet the UK Government has not (until November 2019) displayed evidence of a precautionary approach, preferring instead to rely upon engineering solutions and management of industry practices through regulation in order to overcome any problems faced (Williams et al., 2020). It is in this regard that we see a key convergence between broader UK UHED policy, and the progression of Scottish UHED policy, in that both have become *more* precautionary over time.

Figure 1. Scottish oil and gas revenues over time



Though Scottish UHED policy can be characterised by precaution, it is important to note that it is also, as previously mentioned, a matter of territorial politics. During the Independence Referendum the Scottish National Party (SNP) established political (and discursive dominance) and minimised short-term electoral risks from both the Labour and Conservative parties in Scotland. It then established a dominant anti-Westminster political rhetoric which served to undermine the Scottish Government’s more pragmatic, science-based approach, by emphasising Scottish resistance to the UK’s pursuit of shale gas. As Stephan (2017) argues, Scotland exhibits a dual identity with regards to overall energy policy, being both a major oil and gas producer and committed to hosting a substantial and rapidly growing renewable energy industry. Energy resource production in Scotland has been in a state of transition, with change from fossil fuel extraction (principally coal) to onshore/on-land renewables fractured and partial – influenced by both market competition and broader

policy shifts since the 1970s (Slee, 2020). The former power of the oil and gas industry both as tax revenue source and major employer in Scotland, was a key driver in the early consideration of onshore UHED in Scotland. Stephan (2017) argues, that this was a period of technology emergence. In May 2011 Composite Energy revealed a plan for a test well in Airth, and by November 2011 the Scottish Environmental Protection Agency had granted a licence to Greenpark Energy for test drilling at Canonbie. However, this then took place in the context of broader concerns over activities in Preston, following the seismic activity near Preece Hall in Lancashire that led to a moratorium by the UK Government, and so Scottish policy followed an increasingly precautionary approach, first by introducing new planning measures for UHED projects in June 2014, and then an independent report the following month. The timeline of Scottish policy progression is shown in figure 2.

Figure 2. The progression of Scottish unconventional oil and gas policy.



This twin approach of both evidence-based policy and territorial politics begins with The Scottish Government establishing an Independent Expert Scientific Panel to examine the overall approach to UHED, with a report published in 2014 (Minister for Energy, 2019). These findings, alongside a public consultation, helped lead the Scottish Government to announce a moratorium on onshore unconventional oil and gas in Scotland in January 2015. This was followed by the Scottish Parliament voting in favour of this position in October 2017 (ibid.,) after further devolution of powers following the Scotland Act 2016 the moratorium was upheld despite a legal challenge by the petrochemical firm INEOS in summer 2018. The Scottish Government is currently undertaking a Strategic Environmental Assessment to fully set out its preferred policy position surrounding onshore UHED. Following the Independence Referendum the Scottish Labour Party (itself an opponent of all UHED-related activity) calls for impact assessments and local referenda on all fracking planning applications, but the Scottish Government, buoyed by anti-Westminster sentiment following the Independence Referendum, and in preparation for a general election in 2015, calls for a moratorium upon permissions for all new onshore UHEDs. Stephan (2020) describes this as phase of stalemate. We can understand this as a process of political non-decision-making – rather than take decisive action on overtly ideological grounds (such as by suggesting that all UHED is unsustainable from a climate change perspective as Labour, Liberal Democrat and Green opponents did in the 2015 General Election); the SNP continued to outwardly adopt a scientific evidence review-based approach, with the input of public consultation. This pushes the decision-making framework away from electoral politics, whilst maintaining SNP political credibility (i.e. avoiding charges of hypocrisy) in the face of a supportive policy platform towards offshore oil and gas.

In March 2016, however, Scottish First Minister Nicola Sturgeon publicly stated scepticism towards UHED development, and continued to move towards a precautionary approach, stating in the election manifesto that fracking would only be permitted if developers could prove that it would not be harmful to the environment or to public health. This stood in opposition the UK Government’s push towards streamlining shale gas policy towards a permitted development model, in which the presumption in favour of fracking as a matter of sustainable development is outlined in the National Planning Policy Framework and the subsequent alignment of local and national planning policies to promote shale gas as a national public good (as mentioned in the introduction and in the subsequent section on localism below).

Of additional significance was the Scottish Parliament elections in 2016. As with the case across the UK, public support in Scotland for UHED was falling, and it was becoming a more significant issue amongst Scottish voters (Stephan, 2020).

Thus following the 2016 Scottish Parliament election, in June 2016 the Parliament passed a non-binding resolution in favour of a permanent ban on UHED; though the Scottish Government led by the SNP continued an evidence and consultation-based approach, publishing research results on the environmental, socio-economic, public health and transport impacts of UHED, and beginning a public consultation in January 2017. By October 2017, the SNP announced that the moratorium on shale gas development has become a permanent ban, and thus was the first of the Devolved Administrations to clearly announce a cessation of political support for UHED.

Wales

The situation in Wales closely mirrors that of Scotland. In 2015 Wales became subject to an effective moratorium upon UHED. Former Natural Resources Minister, the late Carl Sargeant AM wrote to councils to reinforce that there was a temporary ban on UHED applications in 2015. In 2015 he stated that fracking technology was "unproven", saying Welsh ministers preferred to look at renewable energy technology alternatives. However, though this was a policy preference, at the time there was discussion that the Welsh Government did not have the power to *ban* UHED, and that ministers could be open to legal challenges, if they refuse to give permission for applications, unless planning guidance is updated (BBC News, 2015).

Opposition to UHED within Welsh politics takes place against a background of major protests mounted against multiple energy infrastructure projects in recent years. For example, in May 2011, 1500 people gathered on the steps of the National Assembly for Wales in Cardiff, the Senedd, to protest against the building of large-scale wind and electricity transmission infrastructure across rural Wales. Since its inception, the Welsh assembly has been a keen supporter of sustainable development strategy, with emphasis both upon large scale infrastructure projects for renewable generation (including wind and tidal projects) as well as grassroots innovation and community energy (Stevenson and Richardson, 2003). As a country with a rich history of fossil fuel development, and an antagonistic approach to policy development between the Labour governed Welsh Assembly and the Conservative majority in Parliament, the modernisation of the planning system to promote a streamlined UHED consents process was politically controversial. A public consultation on petroleum extraction policy in Wales was held between July and September 2018 in which most respondents backed the Welsh Government's draft policy statement not supporting new licensing or support for fracking applications. As a devolved policy matter, powers for development consent and licencing were transferred in 2018 from the UK Government under the OGA to the Welsh Government.

As the part of the transfer of powers The Cabinet Secretary set out the preferred policy in July 2018, that the Welsh Government would not support any applications for hydraulic fracturing consents or undertake any new petroleum licensing in Wales whilst a national consultation on petroleum extraction was underway. The public consultation closed on 25th September 2018 after receiving 1800 responses. After considering the feedback (see Miller Research, 2018), the Welsh Government announced on 10th December 2018 a confirmation response that they will adopt their proposed policy to:

"Not undertake any new petroleum licensing in Wales, or support applications for hydraulic fracturing petroleum licence consents."

The Welsh Government then put a Notification Direction in place so that local authorities cannot approve planning applications for unconventional oil and gas, including fracking, without Welsh Ministers' approval. This supports the Welsh Government's opposition to unconventional extraction. The policy position dovetails with the new edition of the Planning Policy Wales (PPW), to reinforce an effective ban on fracking in Wales. Local councils that would be likely to approve applications for UHED would now be referred to the environment secretary. The upshot of these national-regional scale policy decisions is an effective moratorium on shale gas development in Wales that stands as of January 2021.

Northern Ireland

As with Scotland and Wales, Northern Ireland's control of its offshore licensing remains with the UK Government. Yet despite having had the ability to award licenses for onshore oil and gas drilling since 1964, Northern Ireland does not have any operational fracking sites.

For the most part UHED has not been a prominent feature of Northern Irish environmental and energy policy, though inward investment from onshore oil and gas exploration and development companies have recently brought renewed political scrutiny. In May 2019, Tamboran Resources, a UK-Australian firm, applied for a license to drill for natural gas in Co. Fermanagh. The same company had also sought licenses in Co. Leitrim in The Republic of Ireland 2012 and 2014. Councillor Mary Bohan is a Fianna Fáil local area representative in Co. Leitrim and called upon the public to object to the application during a local authority meeting in June 2019, and asked Leitrim County Council to make a submission that will reflect the impact fracking in Co. Fermanagh will have on the county. Bohan was involved in the anti-fracking campaign in the county which began in

2013 and this action was instrumental in the Government's decision to introduce a fracking ban in the Republic of Ireland in July 2018. In essence, the actions of grassroots political efforts at the local scale in Northern Ireland have been effective in pushing UHED off the national scale agenda. However, it must be noted that a key complicating factor for NI policy making is the collapse of Stormont Assembly in January 2017 which has left control of Northern Ireland domestic affairs in Westminster. Thus, the recent 2019 announcement of a moratorium on UHED in the UK, applied to NI as well.

Key Summary Points

- ▶ Devolved administrations have specific powers to grant development consent to UHED applications under an umbrella of the Nationally Significant Infrastructure Planning regime, that remains broadly similar in each of the component administrations of the United Kingdom. Each Administration favours major infrastructure planning processes through centralised administrative control.
- ▶ UHED has become highly politicised between authorities, with national politics and voter preference becoming important aspects of the Devolved Administrations' relative positions on shale gas. Each of the administrations of the UK have taken a different route to assessing the political viability, economics, health and environmental impacts of shale gas development, with Scottish and Welsh Administrations adopting a consultative approach leading to precautionary measures and moratorium, and the UK Government focusing more specifically on seismic activity monitoring and regulatory processes.
- ▶ Despite differences in approach to consultation, policy making and industry support, there is eventual convergence upon a policy of moratorium and hence an effective ban upon fracking activities across the UK as a whole.

2. Localism – governance across national and local government scales

UHED affects multiple scales of political governance. It is treated on one level as a national energy policy strategy – covering issues such as domestic energy affordability (lowering gas prices to reduce domestic heating costs), improved national level energy security in the face of geopolitical concerns over gas availability in Europe (Boersma and Johnson, 2012; Mason et al., 2015; Rogers, 2011), and improved air quality and lower carbon emissions when transitioning away from black carbon sources (coal/lignite) towards natural gas (see for example Burnham et al., 2012; Jenner and Lamadrid, 2013). It is also relevant to local-to-regional economic policy in terms of the benefits gained in shale gas-abundant communities from job creation and up-skilling (notably the Blackpool and Fylde College fracking training centre) (DECC, 2014), and from community regeneration benefits from shared proceeds amongst producer communities from a proposed shale wealth fund (HM Treasury, 2016; UKOOG, 2013). The planning processes for UHED cut across national energy policy strategy and local developer applications for planning consent. UHED therefore intersects national and local government plans and policies, making it an issue of *multi-scalar* politics discussed in the following section.

At the national scale, UK energy policy focuses upon the consolidation of a centralised, national-scale, and 'big infrastructure' approach to issues to the so-called energy trilemma of *security, affordability and decarbonisation* (Bridge et al., 2013; Bridge et al., 2018; Cotton, 2011, 2019; Groves et al., 2013; Johnstone and Newell, 2018; Johnstone et al., 2017). Within this, UHED has been positioned as a 'bridge' or 'transition' fuel within a broader shift in sustainable energy transitions (Cameron, 2013; Cotton et al., 2014; Hilson, 2015; Jackson et al., 2014; Sovacool, 2014), and a component of national industrial strategy priority since 2012. On the other hand, UK planning policy has been promoted as 'localist' in the sense of encouraging greater involvement of local communities and the devolution of powers in local economic and social development away from central government control (Evans et al., 2013; Layard, 2012). There is a fundamental incompatibility between these two approaches – and UHED has been a crucial policy-making arena where national and local policy strategies have collided, leading to ultimate policy failure (Burns et al., 2016).

Localism, UK Planning Policy and Shale Gas

The concept of localism is relevant to UHED policy. In UK politics, localism commonly refers to a systematic approach to governmental structure that prioritises *decentralisation* of power to local scales of government. Localism has played a key role in changes to planning governance across Europe, promising greater economic efficiency and more effective administration by improving the responsiveness of elected authorities to local needs and priorities. In the UK, as Tait and Inch (2016) note, localism has been introduced by successive governments as a means to enhance political participation and promote new forms of empowered 'community governance'.

Localism in policy-making has multiple definitions – encompassing decentralised service delivery, community ownership, participatory decision-making, local involvement in development planning, and the stimulation of community social capital (Briffault, 2000; Mohan and Stokke, 2000). Tait and Inch (2016) argue, that localism and community empowerment have been features of successive Government initiatives; though in UK politics localism became strongly associated with the Conservative government's so-called Big Society policy agenda that favoured community empowerment, the redistribution of power from the state to citizens, and the promotion of a culture of volunteering and active community citizenship to replace state-run services. The Big Society Agenda, through which the Localism Act 2011 (see Box 3) was the delivery

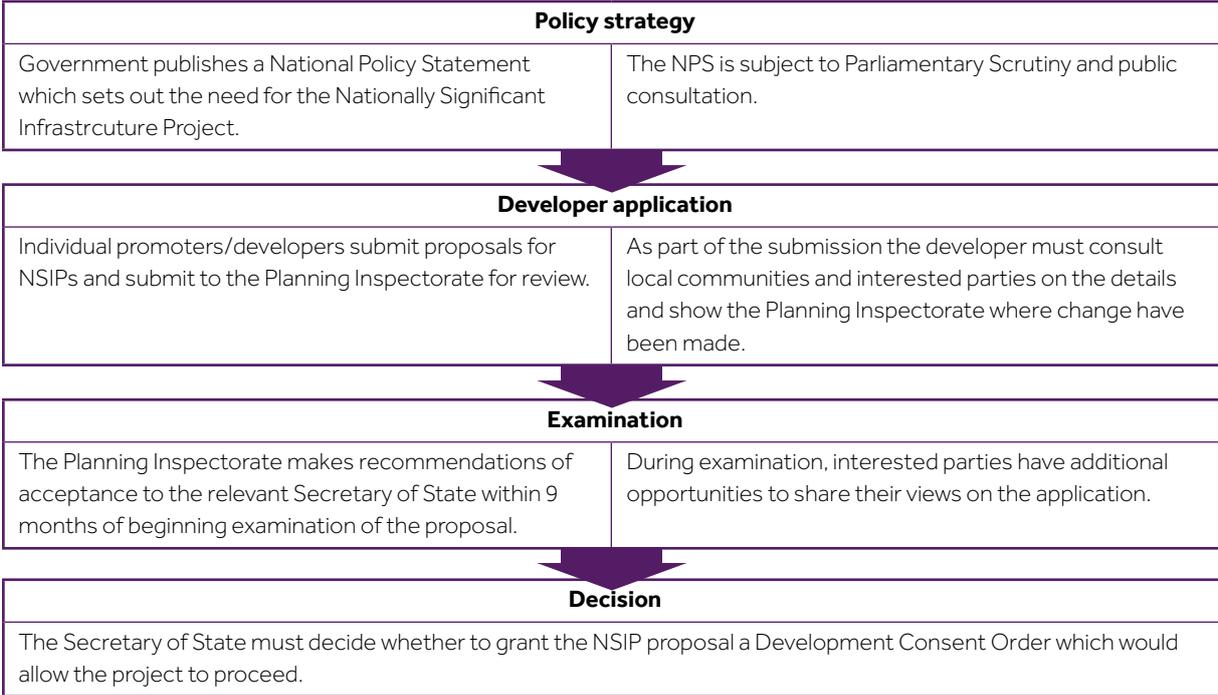
vehicle, aimed to “promote decentralisation and democratic engagement... [by] end[ing] the era of top-down government by giving new powers to local councils, communities, neighbourhoods, and individuals”. The Localism Act confirmed the Coalition Government’s intention to devolve power and decision-making responsibility to “elected local representatives, frontline service professionals, social enterprises, charities, co-ops, community groups, neighbourhoods and individuals... [who are] best placed to find the best solutions to local needs” (Davoudi and Madanipour, 2015). Though championed during Cameron’s Coalition Government, the approach was criticised because it overlooked the role that the state plays in social justice, because it largely assumed that “active citizens” would take up services traditionally offered by local government (through philanthropy and volunteerism), and therefore seemed to offload public service responsibilities to community groups during a period of economic austerity (Catney et al., 2014; Kisby, 2010). Thus concern was raised that localism would simply shrink the state and co-opt local organisations in the delivery of national policy (Davoudi and Madanipour, 2015), reducing public service provision by transferring responsibility to neighbourhoods, community and third sector organisations to manage delivery (Buser, 2013). The Big Society Agenda as it was known, quickly fell by the wayside, and disappeared from mainstream policy strategy, though the Localism Act has remained relatively unchanged since its inception a decade ago.

Box 3 Major infrastructure planning legislation

The Planning Act 2008 was intended to streamline the processes for planning approval to major new infrastructure projects (sometimes called megaprojects) such as motorways, airports, harbours, and large-scale energy facilities such transmission lines, nuclear power stations and large wind farms. It concerned the authorisation of projects for the development of nationally significant infrastructure, alongside specific provisions in town and country planning, and provision for the imposition of a Community Infrastructure Levy. The Act designates the ‘need case’ for major infrastructure through a series of National Policy Statements (NPS); private developers then propose major infrastructure projects in lines with the relevant NPS. The most controversial element of the Act was the setting up of the Infrastructure Planning Commission – an independent body to oversee consents processes, removing powers from local planning authorities and the Secretary of State.

The Localism Act 2011 – Then Prime Minister David Cameron stated about the IPC that: “this quango is going to be almost entirely divorced from the processes of democracy. That is wrong. People need a planning system in which they feel they have a say – both at national and local level. That is why this Bill is getting such widespread opposition from so many different quarters”. The Coalition Government introduced the Localism Act which replaced the IPC’s decision-making authority with the Secretary of State. The SoS responds to recommendations from the Planning Inspectorate. National Policy Statements can also be vetoed by the House of Commons under the new legislation. The structure of the process for development consent is outlined in figure ..

Figure 3 – The Nationally Significant Infrastructure Planning Process



The Localism Act is the core aspect of localist planning policy that related to UHED. The Localism Act 2011 is a continuation of the modernisation agenda within infrastructure planning that began under the former Labour Government, with the Planning Act 2008. Together, the two planning policies are mechanisms that reveal a change within the philosophical outlook towards planning processes and the separation of planning and politics. These two legislative instruments "re-scale" the process of decision-making on major energy technology and planning developments from that of local environmental protection to that of national public interest (Bentley and Pugalis, 2013; Cotton, 2011, 2019; Johnstone, 2010; Johnstone and Newell, 2018). As mentioned above, The Planning Act 2008 'streamlined' planning consents for major infrastructure projects deemed to be of national significance (including major roads, airports, ports, power stations and electricity/gas transmission and telecommunications infrastructure). The legislation was supported following a series of slow and expensive major infrastructure projects – notably including the Heathrow Airport Terminal 5 (that involved a planning inquiry that cost £80m, heard 700 witnesses, generated 100,000 pages of transcripts, sat for 524 days and took eight years from first application to government approval), the Sizewell B nuclear power station inquiries, and the Lackenby–Picton–Shipton power line in the north of England inquiries, each of which were expensive and antagonistic between local communities and developers (Cotton, 2014).

The Planning Act 2008 was designed to allow these types of projects to come to fruition much faster and at lower industry and public sector cost. The Planning Act 2008 removed the powers of planning consents processes from local authorities to an independent body – the Infrastructure Planning Commission. The 'need case' for infrastructure was established under the Planning Act 2008 through consultation and development of a National Policy Statement. Infrastructure is first designated as a "nationally significant infrastructure project" (NSIP) under the Planning Act 2008. A developer must then apply for a development consent order (DCO) (which effectively removes the need to obtain several consents that would otherwise be required for development, such as planning permission and compulsory purchase order). Under Labour it was the Infrastructure Planning Commission (IPC) that had the power to make consent order decisions, but the Coalition Government deemed this to be *undemocratic* (see Box 3). A part of the localist political agenda of the Coalition and Conservative governments, there was a desire to reduce the number of quasi-autonomous non-governmental organisations (quangos) whilst strengthening the capacity of the of the core executive (cabinet) and sponsor departments to control and co-ordinate governance (Flinders et al., 2014). As a result, the Localism Act 2011 allowed the Coalition government to replace the decision-making authority of the IPC with that of The Secretary of State as the final authority to approve or decline a DCO application. The SoS is, in turn, advised by an "Examining Authority" arranged by the Planning Inspectorate and must have regard to the relevant National Policy Statement to which the application pertains (Smith, 2017). The Localism Act 2011 and subsequent provisions created an inherent contradiction – it encouraged local participation, but simultaneously removed local authority planning control over large energy technology projects.

UHED has been on the margins of the NSIP planning regime since 2012. Local planning authorities (particularly in Lancashire) have been subject to intense political scrutiny over their planning decisions on UHED, and (from the perspective of local authorities) interference in democratic outcomes by central government. As Jennifer Mein, leader of Lancashire county council argued in the Guardian in 2016 (Mein, 2016):

It is clearly a very emotive subject... locally elected representatives... took their responsibilities in considering these applications very seriously and exercised their duty to the best of their abilities... that is what local democracy should be about: local people making decisions about the big issues that affect them. One of the key themes promoted by central government in recent years has been localism, promoting the advantages of devolving power to communities up and down the country... It is right and proper that this country's planning regime enables applicants to appeal against decisions that go against them. And as part of that process, the secretary of state has long had the power to recover the final decision. However, it is easy to understand the frustration felt by those who opposed the applications, and now find their local representatives overruled by the secretary of state... [he] has made very clear its determination to see shale gas exploited on a large scale.

Then Communities Secretary, Sajid Javid, made national headlines when he accepted an appeal from Cuadrilla against an earlier decision to turn down their plans to extract shale gas resources on the Fylde in Lancashire. The position was explicitly anti-localist in the sense that the democratically taken decision at the local authority level was overruled by a higher tier of government. Central government frustration over the apparent slowness at which decisions were being made by local authorities (and the lack of support for UHED in general) led to plans to move the shale gas production process into the NSIP process. This move to change the status of UHED in planning policy leads to the second important driver of the localist policy agenda in planning - The National Planning Policy Framework. The NPPF constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications. Importantly, it is not part of the Localism Act - it is a more loosely defined 'framework' for planning policy rather than a specific plan (Hayes, 2012). The National Planning Policy Framework's

paragraph 14 presents a 'golden thread' of presumed consent under conditions of sustainable development that runs throughout all planning decision-making – public participation is a core aspect of this consents process. Participation allows localism through greater community-level control, but this always carries the risk of protest against development. For example, as Hawkins (2020) notes, the Draft Spatial Framework for Greater Manchester states that UHED will not be supported, though this is in potential violation of the National Planning Policy Framework, which presumes planning consent on sustainable development grounds (should the current moratorium be lifted in the future). Interpretation of presumed planning consent on sustainable development grounds is problematic, however, because fossil fuel developments (of any sort) run counter to legally binding commitments for low carbon development planning under the Climate Change Act 2008 (Hilson, 2015). Moreover, environmental issues that constitute local-scale impacts (such as micro-tremors) or international scale impacts (such as greenhouse gas emissions) are handled by different scales of governance within planning and regulatory systems, and planning authorities exclude certain lines of evidence if it relates to the wrong scale – for example, as Williams (2018) shows, in planning inquiries into fracking site construction in Lancashire, lines of evidence pertaining to national policy (such as those related to climate change impacts) were excluded as being beyond the remit of the local authority.

The friction between central and local government was exacerbated in August 2015 when Greg Clark MP and Amber Rudd MP issued a joint statement that introduced a new approach to fast-track planning applications for UHED – stating that appeals against any refusals of planning permission for UHED or against non-determination will be treated as priority for urgent resolution, with potential input by the Secretary of State for Communities and Local Government; potentially calling in shale gas applications using powers contained in the Town and Country Planning Act 1990, and considering each case upon its own merits in line with this policy. The Secretary of State also reserves a right to identify underperforming local planning authorities (defined as those that fail to grant or fail to decide upon UHED planning applications) and determine the application in the authority's place. Over time, the Conservative Government sought to draw further planning powers to the centre and thus speed up applications for UHED, leading a consultation on a proposed policy move to bring major shale gas production projects into the Nationally Significant Infrastructure Project (NSIP) regime set out in the Planning Act 2008 and Localism Act 2011, and thus place UHED within the streamlined process, and effectively circumventing local authority control. If successful, the proposal would have fundamentally rescaled UHED to nationally significant infrastructure and changed the level of government at which the decision was taken. Such an approach has been criticised as taking decision-making power away from local communities in favour of presumptive planning consent in line with national energy policy and industrial strategy goals, violating local community rights to autonomous consent, access to public participation and environmental justice within the planning system (Cotton, 2017). However, within the consultation, proposals to bring UHED planning in line with the NSIP process were met with strong opposition. 83% of respondents objected to the move, largely due to the view that this involved the removal of local decision making and local democracy. Respondents also claimed that moving shale gas production into the NSIP regime would contradict the UK's climate change objectives and could lead to adverse environmental outcomes. Recommendations made in the Communities and Local Government Select Committee report stated that: "it is our view that while the UK shale industry remains at an early exploratory stage including the production phase into the Nationally Significant Infrastructure Project (NSIP) regime would be premature" (DBEIS, 2019b). As a result, the plan for greater statutory control by Government over shale gas site planning was dropped.

Key summary points

- ▶ Localism has been a key part of successive government policy – presented as a political means to empower communities over local decision-making, to provide local plan making and infrastructure development, and conversely, to streamline infrastructure plans for major projects.
- ▶ Shale gas planning at the local level remained under significant pressure from the UK Government, because local inquiries and other forms of development control were seen as 'too slow' and running counter to the Government's objective to promote the shale gas development phase.
- ▶ Issues of local democratic control over UHED decisions are crucial to the fairness and social acceptability of shale gas decision-making. Social license to operate is an important aspect of shale gas development consent – it is a nebulous trust relationship between communities and extractive industries that has no legal standing and is thus largely ignored by UK developers (Bradshaw and Waite, 2017), and yet the lack of social licence has led to sustained public opposition in UHED well sites, and a broader decline in public support over time.
- ▶ Though shale gas is under effective moratorium status across the Devolved Administrations, the issue is paused rather than finally resolved. We have moved from a promoter phase to an abatement phase across all components of UK policy. However, if the shale gas question is reopened across Devolved Administrations in the future, then issues of local democratic control and public participation at the community level will remain important criteria for the technology's success.

About the Authors

Professor Matthew Cotton

Is Professor of Public Policy in the School of Social Sciences, Humanities and Law at Teesside University. His research focuses upon social justice and participatory decision-making in energy policy. He has written numerous articles on the social dimensions of unconventional hydrocarbons in *Energy Policy*, *Energy Research & Social Science*, *Environment and Planning A*, and *Ecological Economics*; and is co-editor of the book *Governing Shale Gas* (Routledge, 2018).

Dr Adrian Gonzalez

Is Lecturer in Sustainability at the University of York, leading the MSc in Sustainable Business: Leadership, Innovation and Management. He was formerly Lecturer in the School of Geography and Planning, Cardiff University, awarded through the Darlithwyr Disglair (Brilliant Lecturers) scheme for early career academics. He conducts research into environmental justice, natural resource governance, sustainable development and corporate social responsibility, developing the political ecology of voice (PEV) theoretical framework for assessing the social justice dimensions of environmental inequality in the extractive industries.

Dr Jennifer Dickie

Is Lecturer in the Department of Biological and Environmental Sciences at the University of Stirling. Her research examines socio-environmental interactions of the energy landscape, using research methods encompassing community engagement and creative co-creation, GIS, participatory mapping, mobile and social data collection techniques to explore the complex relationships among climate change, energy and sustainability. She is currently co-investigator on the related project: Understanding the spatial and temporal dynamics of public attitudes and community responses to shale gas: an integrated approach. (NERC Unconventional Hydrocarbons Programme) 2018-2021.

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For Further Information

m.cotton@tees.ac.uk

References

- Ambrose, J. 2019. Fracking halted in England in major government U-turn. *The Guardian*.
- BBC News (2015) "Fracking still opposed in Wales, ministers tell councils." London:BBC News. Available at: <https://www.bbc.co.uk/news/uk-wales-politics-33935224>.
- Beebeejaun, Y. (2017) "Exploring the intersections between local knowledge and environmental regulation: a study of shale gas extraction in Texas and Lancashire." *Environment and Planning C: Politics and Space* 35 (3):417-433.
- Bentley, G., and Pugalis, L. (2013) "New directions in economic development: Localist policy discourses and the Localism Act." *Local Economy* 28 (3):257-274.
- Bickle, M., Goodman D., Mair, R., Roberts, R. Selley, R.C. Shipston, Z Thomas, H.and. Younger, P. (2012) Shale gas extraction in the UK: a review of hydraulic fracturing. London: Royal Society and Royal Academy of Engineering.
- Boersma, T. and Johnson, C. (2012) "The Shale Gas Revolution: U.S. and EU Policy and Research Agendas." *Review of Policy Research* 29 (4):570-576. doi: 10.1111/j.1541-1338.2012.00575.x.
- Bomberg, E. (2017) "Shale We Drill? Discourse Dynamics in UK Fracking Debates." *Journal of Environmental Policy and Planning* 19 (1):72-88. doi: 10.1080/1523908X.2015.1053111.
- Bradshaw, M., and Waite, C. (2017) "Learning from Lancashire: Exploring the contours of the shale gas conflict in England." *Global Environmental Change* 47:28-36.
- Bridge, G. (2012) "Review of Gasland by Josh Fox." *Area* 44 (3):388-390.
- Bridge, G. Bouzarovski, S. Bradshaw, M and Eyre, N. (2013) "Geographies of energy transition: Space, place and the low-carbon economy." *Energy Policy* 53 (0):331-340. doi: <http://dx.doi.org/10.1016/j.enpol.2012.10.066>.
- Bridge, G. Özkaynak, B. and Turhan, E. (2018) "Energy infrastructure and the fate of the nation: Introduction to special issue." *Energy Research & Social Science* 41:1-11.
- Briffault, R. (2000) "Localism and regionalism." *Buffalo Law Review* 48:1-31.

- Brock, A. (2020) "Frack off": Towards an anarchist political ecology critique of corporate and state responses to anti-fracking resistance in the UK." *Political Geography* 82:102246.
- Burnham, A. Han, J. Clark, C.E. Wang, M. Dunn, J.B. and Palou-Rivera, I (2012) "Life-cycle greenhouse gas emissions of shale gas, natural gas, coal, and petroleum." *Environmental science & technology* 46 (2):619-627.
- Burns, M. Reid, C. and Bremen, J. (2016) "UK shale gas—a policy tug of war." *Journal of Energy & Natural Resources Law* 34 (2):247-260.
- Buser, M. (2013) "Tracing the democratic narrative: Big Society, localism and civic engagement." *Local Government Studies* 39 (1):3-21.
- Cairney, P. McHarg, A. McEwen, N. and Turner, K. (2019) "How to conceptualise energy law and policy for an interdisciplinary audience: The case of post-Brexit UK." *Energy Policy* 129:459-466.
- Cameron, D. (2013) "We cannot afford to miss out on shale gas." *The Telegraph*, 11/08/2013. Available at: <http://www.telegraph.co.uk/news/politics/10236664/We-cannot-afford-to-miss-out-on-shale-gas.html>.
- Catney, P. MacGregor, S. Dobson, A. Hall, S.M. Royston, S. Robinson, Z. Ormerod, M. and Ross, S. (2014) "Big society, little justice? Community renewable energy and the politics of localism." *Local Environment* 19 (7):715-730.
- Clarke, C. E. Hart, P.S. Schuldt, J.P. Evensen, D.T.N. Boudet, H.S. Jacquet, J.B. and Stedman, R.C. (2015) "Public opinion on energy development: the interplay of issue framing, top-of-mind associations, and political ideology." *Energy Policy* 81:131-140.
- Cotton, M. (2011) "Public Participation in UK Infrastructure Planning: Democracy, Technology and Environmental Justice." In *Engaging with Environmental Justice: Governance, Education and Citizenship*, edited by M. Cotton and B.H. Motta. Oxford: Inter-Disciplinary Press.
- Cotton, M. (2014) "Environmental Justice Challenges in United Kingdom Infrastructure Planning: Lessons from a Welsh Incinerator Project." *Environmental Justice* 7 (2):39-44.
- Cotton, M. (2017) "Fair fracking? Ethics and environmental justice in United Kingdom shale gas policy and planning." *Local Environment* 22 (2):185-202. doi: 10.1080/13549839.2016.1186613.
- Cotton, M. (2019) "Planning, infrastructure and low carbon energy." In *Companion to Environmental Planning and Sustainability*, edited by Davoudi, S. Blanco, H. Cowell, R. and White, I. 248-256. Abingdon: Routledge.
- Cotton, M. Barkemeyer, R. Renzi, B.G. and Napolitano, G. 2019. "Fracking and metaphor: Analysing newspaper discourse in the USA, Australia and the United Kingdom." *Ecological Economics* 166:106426.
- Cotton, M. Rattle, I. and Van Alstine, J. (2014) "Shale gas policy in the United Kingdom: an argumentative discourse analysis." *Energy Policy* 73:427-438.
- Cowburn, A. (2019) 'Election stunt': Labour cries foul over fracking suspension as campaigners push for permanent ban. *The Independent*.
- Cowell, R. Ellis, G. Sherry-Brennan, F. Strachan, P.A. and Toke, D. (2017) "Rescaling the Governance of Renewable Energy: Lessons from the UK Devolution Experience." *Journal of Environmental Policy & Planning* 19 (5):480-502. doi: 10.1080/1523908X.2015.1008437.
- Craig, K. Evensen, D. and Van Der Horst, D. (2019) "How distance influences dislike: Responses to proposed fracking in Fermanagh, Northern Ireland." *Moravian Geographical Reports* 27 (2):92-107.
- Davoudi, S. and Madanipour, A. (2015) "Localism and the 'Post-social' Governmentality." In *Reconsidering Localism*, 77-102. Abingdon: Routledge.
- DBEIS (2019a) BEIS Public Attitudes Tracker - September 2019 (Wave 31). London: Department of Business, Energy and Industrial Strategy.
- DBEIS (2019b) Inclusion of shale gas production in the nationally significant infrastructure project regime – Government response. London: Department of Business, Energy and Industrial Strategy.
- DBEIS (2020) BEIS Public Attitudes Tracker: Wave 35. Department of Business, Energy and Industrial Strategy: London.
- DECC (2014) "Skilling up shale: First national UK onshore oil and gas college announced". Department of Energy and Climate Change. Available at: <https://www.gov.uk/government/news/skilling-up-shale-first-national-uk-onshore-oil-and-gas-college-announced>.
- Dodsworth, A. (2017) "The Advantages of Opposition: Fracking and the Greens." In *Voices of the UK Left*, 149-170. Springer.
- Evans, M. Marsh, D. and Stoker, G. (2013) "Understanding localism." *Policy Studies* 34 (4):401-407.
- Evensen, D. (2018) "Review of shale gas social science in the United Kingdom, 2013-2018." *The Extractive Industries and Society*.
- Flinders, M. Dommett, K. and Tonkiss, K (2014) "Bonfires and barbecues: coalition governance and the politics of quango reform." *Contemporary British History* 28 (1):56-80.
- Fox, J. (2011) *Gasland: International Wow Company production*. Distributed by HBO.
- Green, C.A., Styles, P. and Baptie, B. (2012) *Preese Hall shale gas fracturing: review & recommendations for induced seismic mitigation*. London: Department of Energy & Climate Change.
- Groves, C. Munday, M. and Yakovleva, N. (2013) "Fighting the Pipe: neo-liberal governance and barriers to effective community participation in energy infrastructure planning." *Environment and Planning C: Government and Policy* 31 (2):340-356.
- Hawkins, J. (2020) *Briefing 2: The Shale Gas Legal Landscape*. Newcastle: UKUH.
- Hayes, M. (2012) *Facilitating neighbourhood plans: the infrastructure challenge*. In *Local Infrastructure Planning and Delivery: progress and prospects UCL* 21.06.13. London: UCL.

- Hayhurst, R. (2020) "Fracking is over" – UK energy minister. Drill of Drop?: London.
- Heffron, R. J. and Nuttall, W. J. (2017) "Scotland, Nuclear Energy Policy and Independence." In *A Critical Review of Scottish Renewable and Low Carbon Energy Policy*, 103-126. Springer.
- Hilson, C. (2015) "Framing Fracking: Which Frames Are Heard in English Planning and Environmental Policy and Practice?" *Journal of Environmental Law* 27 (2):177-202. doi: 10.1093/jel/equ036.
- HM Treasury (2013) *Harnessing the potential of the UK's natural resources: a fiscal regime for shale gas*. edited by HM Treasury. London.
- HM Treasury (2016) "Shale wealth fund: consultation." *Crown Copyright, London*.
- HM Treasury and Andrew Jones MP. (2017) "Communities to decide how to spend shale cash windfall." HM Treasury. <https://www.gov.uk/government/news/communities-to-decide-how-to-spend-shale-cash-windfall>.
- Jackson, R.B. Vengosh, A. Carey, J.W. Davies, R.J. Darrah, T.H. O'Sullivan, F. and Pétron, G. (2014) "The environmental costs and benefits of fracking." *Annual Review of Environment and Resources* 39:327-362.
- Jaspal, R. and Nerlich, B. (2014) "Fracking in the UK media: Threat dynamics in an unfolding debate." *Public Understanding of Science* 23 (3):348-363.
- Jaspal, R. Turner, A. and Nerlich, B. (2014) "Fracking on YouTube: Exploring risks, benefits and human values." *Environmental Values* 23 (5):501-527.
- Jenner, S., and Lamadrid, A.J. (2013) "Shale gas vs. coal: Policy implications from environmental impact comparisons of shale gas, conventional gas, and coal on air, water, and land in the United States." *Energy Policy* 53 (0):442-453. doi: <http://dx.doi.org/10.1016/j.enpol.2012.11.010>.
- Johnstone, P. (2010) "The nuclear power renaissance in the UK: democratic deficiencies within the 'consensus' on sustainability." *Human Geography* 3 (2):91-104.
- Johnstone, P. and Newell, P. (2018) "Sustainability transitions and the state." *Environmental Innovation and Societal Transitions* 27:72-82.
- Johnstone, P. Stirling, A. and Sovacool, B. (2017) "Policy mixes for incumbency: exploring the destructive recreation of renewable energy, shale gas 'fracking,' and nuclear power in the United Kingdom." *Energy Research & Social Science* 33:147-162.
- Kisby, B. 2010. "The Big Society: power to the people?" *The political quarterly* 81 (4):484-491.
- Kotsakis, A. (2012) "The Regulation of the Technical, Environmental and Health Aspects of Current Exploratory Shale Gas Extraction in the United Kingdom: Initial Lessons for the Future of European Union Energy Policy." *Review of European Community & International Environmental Law* 21 (3):282-290. doi: 10.1111/j.1467-9388.2012.00759.x.
- Layard, A. (2012) "The Localism Act 2011: what is 'local' and how do we (legally) construct it?" *Environmental law review* 14 (2):134-144.
- Luke, H. Brueckner, M. and Emmanouil, N. (2018) "Unconventional gas development in Australia: A critical review of its social license." *The Extractive Industries and Society* 5 (4):648-662.
- Macalister, T., and Harvey, F. (2013) "Osborne unveils 'most generous tax breaks in world' for fracking: Chancellor sets 30% rate for shale gas producers Environmental groups furious at 'sweet-heart deal'." *The Guardian*, 19/07/2013.
- Macnaghten, P. (2017) "Public perception: Distrust for fracking." *Nature Energy* 2 (5):1-2.
- Mason, C.F. Muehlenbachs, L.A. and Olmstead, S.M. (2015) "The economics of shale gas development." *Annual Review of Environmental and Resource Economics* 7 (1):269-289.
- McNally, H. Howley, P. and Cotton, M. (2018a) "Public perceptions of shale gas in the UK: framing effects and decision heuristics." *Energy, Ecology and Environment*:1-12.
- McNally, H. Howley, P. and Cotton, M. (2018b) "Public perceptions of shale gas in the UK: framing effects and decision heuristics." *Energy, Ecology and Environment* 3 (6):305-316.
- Mein, J. (2016) "What price Tory localism when fracking's on offer in Lancashire?" *The Guardian*, 7th October 2016. Available at: <https://www.theguardian.com/commentisfree/2016/oct/07/tory-localism-fracking-lancashire-sajid-javid-drilling>.
- Miller Research (2018) *Welsh Government Consultation – summary of responses: Petroleum extraction in Wales Consultation*. Report number. WG36478. Cardiff: Welsh Government.
- Minister for Energy, Connectivity and the Islands (2019) "Policy: oil and gas." Scottish Government. Available at: <https://www.gov.scot/policies/oil-and-gas/>.
- Mohan, G. and Stokke, K. (2000) "Participatory development and empowerment: the dangers of localism." *Third World Quarterly* 21 (2):247-268.
- Muncie, E. (2020) "'Peaceful protesters' and 'dangerous criminals': the framing and reframing of anti-fracking activists in the UK." *Social Movement Studies* 19 (4):464-481.
- Neil, J. Schweickart, T. Zhang, T. Lukito, J. Kim, J.Y. Golan, G. and Kioussis, S. (2018) "The dash for gas: Examining third-level agenda-building and fracking in the United Kingdom." *Journalism Studies* 19 (2):182-208.
- O'Hara, S. Humphrey, M. Andersson, J. Jaspal, R. Nerlich, B. and Knight, W. (2014) *Public perception of shale gas extraction in the UK: the turn against fracking deepens*. Nottingham: University of Nottingham.
- OGA (2019a) *Interim report of the scientific analysis of data gathered from Cuadrilla's operations at Preston New Road*. London: Oil and Gas Authority.
- OGA (2019b) "Preston New Road - PNR 1Z - Hydraulic Fracturing Operations Data." Oil and Gas Authority. Available at: <https://www.ogauthority.co.uk/exploration-production/onshore/onshore-reports-and-data/preston-new-road-pnr-1z-hydraulic-fracturing-operations-data/>.

- Ostrom, E. (2009) "A general framework for analyzing sustainability of social-ecological systems. ." *Science* 325:419-422.
- Power, S. and Cowell, R. (2012) "Wind power and spatial planning in the UK." In *Learning from Wind Power*, edited by J. Szarka, R. Cowell, G. Ellis, P.A. Strachan and C.R. Warren, 61-84. Berlin: Springer.
- Priestley, S. (2018) Shale gas and fracking. Briefing Paper CBP 6073. London: House of Commons Library.
- Rabe, B. G. and Hampton R.L. (2016) "Trusting in the future: The re-emergence of state trust funds in the shale era." *Energy Research & Social Science* 20:117-127.
- Rattle, I. Middlemiss, L. and Van Alstine, J. (2020) "'Google fracking': The online information ecology of the English shale gas debate." *Energy Research & Social Science* 64.
- Reap, E. (2015) "The risk of hydraulic fracturing on public health in the UK and the UK's fracking legislation." *Environmental Sciences Europe* 27 (1):27.
- Rogers, H. (2011) "Shale gas—the unfolding story." *Oxford Review of Economic Policy* 27 (1):117-143. doi: 10.1093/oxrep/grr004.
- Singer, R. (2019) "The Flaming Faucet as Fracking's Ideographic Synecdoche: Tracking its Emergence in the Rhetorics of Gasland and the US Natural Gas Industry." In *The Rhetoric of Oil in the Twenty-First Century*, 90-110. Routledge.
- Slee, B. (2020) "Fossil Fuel Decline and the Rural Economy: The Case of Scotland." In *The Palgrave Handbook of Managing Fossil Fuels and Energy Transitions*, 371-401. Springer.
- Smith, D.C. and Richards, J.M. (2015) "Social license to operate: hydraulic fracturing-related challenges facing the oil & gas industry." *ONE J: Oil and Gas, Natural Resources, and Energy Journal* 1:81-164.
- Smith, L.G. (2017) Planning for Nationally Significant Infrastructure Projects, Briefing Paper Number 06881, July 2017. London: House of Commons Library.
- Sovacool, B.K. (2014) "Cornucopia or curse? Reviewing the costs and benefits of shale gas hydraulic fracturing (fracking)." *Renewable and Sustainable Energy Reviews* 37:249-264.
- Stephan, H.R. (2017) "The discursive politics of unconventional gas in Scotland: Drifting towards precaution?" *Energy Research & Social Science* 23:159-168.
- Stephan, H.R. (2020) "Shaping the scope of conflict in Scotland's fracking debate: Conflict management and the narrative policy framework." *Review of Policy Research* 37 (1):64-91.
- Stevenson, R. and Richardson, T. (2003) "Policy integration for sustainable development: exploring barriers to renewable energy development in post-devolution Wales." *Journal of Environmental Policy & Planning* 5 (1):95-118.
- Szolucha, A. (2018) "Community understanding of risk from fracking in the UK and Poland: How democraac-based and justice-based concerns amplify risk perceptions." In *Governing Shale Gas: Development, Citizen Participation and Decision Making the US, Canada, Australia and Europe*, edited by J. Whitton, M. Cotton, K. Brasier and I. Charnley-Parry, 242-255. London: Routledge.
- Tait, M. and Inch, A. (2016) "Putting localism in place: Conservative images of the good community and the contradictions of planning reform in England." *Planning Practice & Research* 31 (2):174-194.
- UKOOG (2013) Community Engagement Charter: Oil and Gas from Unconventional Reservoirs. London: United Kingdom Onshore Oil and Gas.
- UKOOG (2019) "Licensed areas." Available at: <http://www.ukoog.org.uk/onshore-extraction/where-we-operate>.
- Wagner, A. (2014) "Shale gas: Energy innovation in a (non-) knowledge society: A press discourse analysis." *Science and Public Policy* 42 (2):273-286.
- Weijermars, R. and McCredie, C. (2011) "Assessing shale gas potential." *Petroleum Review* 65 (777):1-3.
- Whitmarsh, L. Nash, N. Upham, P. Lloyd, A. Verdon, J.P. and Kendall, J.M. (2015) "UK public perceptions of shale gas hydraulic fracturing: The role of audience, message and contextual factors on risk perceptions and policy support." *Applied Energy* 160:419-430.
- Williams, L. (2018) "Channelling Sensitivity: the production of justification for shale gas in the English planning system " PhD, Sussex University.
- Williams, L. Martin, A. and Sovacool, B. (2020) Briefing 6: A Brief History of the UK's Political Debate over Shale Gas, 2009-2019. Newcastle: UKUH.
- Williams, L. and Sovacool, B.K. (2019) "The discursive politics of 'fracking': Frames, storylines, and the anticipatory contestation of shale gas development in the United Kingdom." *Global Environmental Change* 58:101935.
- Williams, L. and Sovacool, B.K. (2020) "Energy democracy, dissent and discourse in the party politics of shale gas in the United Kingdom." *Environmental Politics*:1-25.

FOR FURTHER INFORMATION
m.cotton@tees.ac.uk