

Science Funding

SCIENCE POLICY RESEARCH UNIT

Climate Change

Innovation Systems Energy Sustainability

Growth Development Emerging Techno

‘Fracking’, framing and effective participation

Summary of findings, UKUH Annual Science Meeting, 09.09.21

Socio-technical Systems Transitions Fo

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BUSINESS
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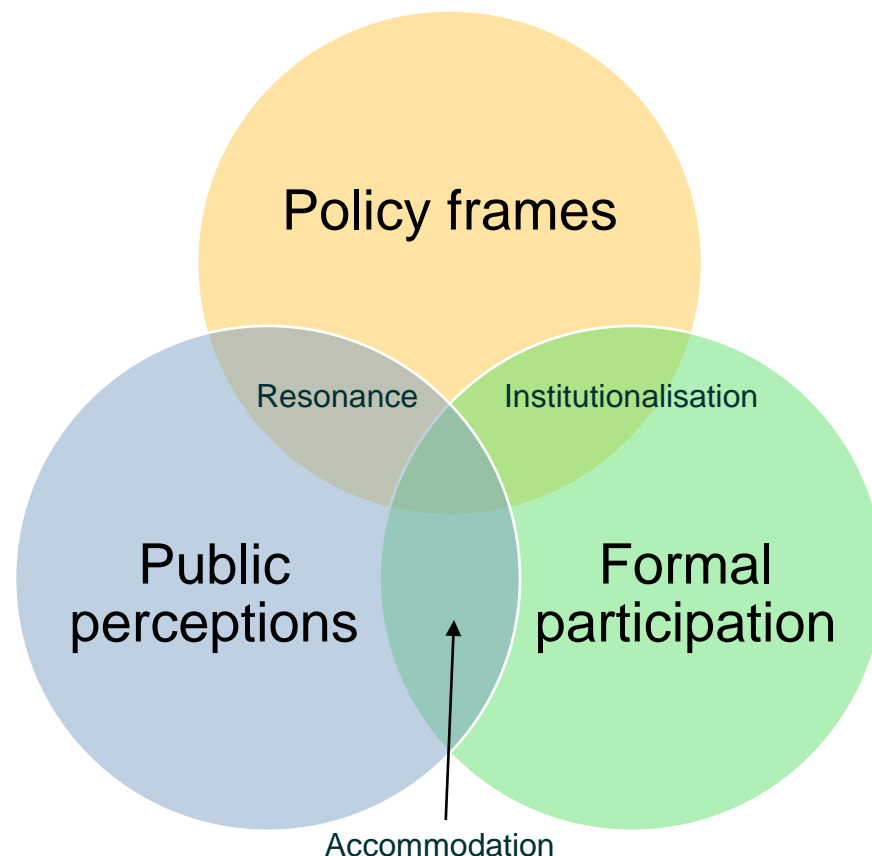
Project overview

3 core WPs

- WP1: Public perceptions
- WP2: Policy frames
- WP3: Processes of formal public participation

3 key relationships

- How resonant are policy frames with the public?
- Is formal public participation an avenue through which public views can be registered and influence policy and decisions (i.e. accommodation)?
- Do dominant policy frames shape formal participation (i.e. institutionalisation)?



Project progress

WP2 (which oddly started first):

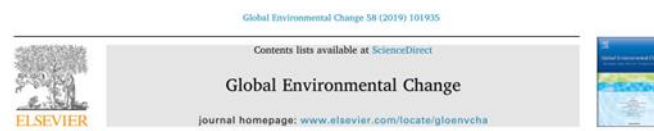
- Work package completed
- Analysis of key policy frames published in *GEC*
- Analysis of discourse coalition membership and party politics published in *Environmental Politics*
- Paper on lessons from framing contest accepted for publication in *Nature and Culture SI*
- 2 additional outputs on sociotechnical imaginaries and role of UK and US state in development of global gas production network

WP1 (ongoing, in the middle):

- Community interviews complete and published in *Local Environment*
- Survey #1 being analysed
- Paper on the resonance of policy frames currently being written
- Survey #2 to be fielded this month
- 3 other survey outputs planned

WP3 (ongoing, almost done):

- Analysis complete, paper being written



The discursive politics of 'fracking': Frames, storylines, and the anticipatory contestation of shale gas development in the United Kingdom

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ARTICLE INFO

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ABSTRACT

How contested sources of energy such as shale gas are perceived in frontier countries considering their development is incredibly important to national and international climate policies. The UK shale development case is of particular interest currently as the Government attempts to position the UK as a pioneer of European, safe, sustainable shale gas development. We conduct a mixed-methods analysis of the UK policy debate on shale gas development involving 30 stakeholder interviews and 1557 political documents. This empirical focus extends the existing literature by identifying the use of frames in and through the institutions and practices of formal UK politics. We identify nine key frames and their associated storylines, analyse their use over time, and compare these findings with other national case studies. Perhaps unsurprisingly, given most UK Governments within our timeframe have supported shale development, pro-shale development frames dominate in the policy debate; however, we also find a high level of anti-shale development frame use, suggesting a deep and ongoing framing

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 **Routledge**
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Energy democracy, dissent and discourse in the party politics of shale gas in the United Kingdom

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ABSTRACT

Drawing from an extensive content analysis of the UK parliamentary debate over shale gas, we use the UK shale gas case to explore how energy democracy themes are used and countered in the framing strategies of discourse coalitions in national political sites. Furthermore, we explore the extent to which these national political sites and discursive strategies are effective as institutions and practices through which to achieve energy democracy. We achieve this through an analysis of the success of the UK anti- and pro-shale gas development discourse coalitions in recruiting national political figures and influencing thinking and decision-making in parliament. In doing so, we bring together the literatures on discourse coalitions and energy democracy. We conclude with implications for both national policy as well as critical inquiry into environmental politics.

KEYWORDS Energy democracy; shale gas; hydraulic fracturing; frames; discursive coalitions; party politics

WP2 - approach

- Interviewed 30 well-placed stakeholders and analysed 1,557 policy documents
- Identified 9 key frames widely used in the UK shale development policy debate 2010-mid 2018
- 4 pro-shale development frames and 5 anti-shale development frames
- Tracked frame use over time, coded for identity of those using frames in parliamentary debate (party, frontbench or backbench)

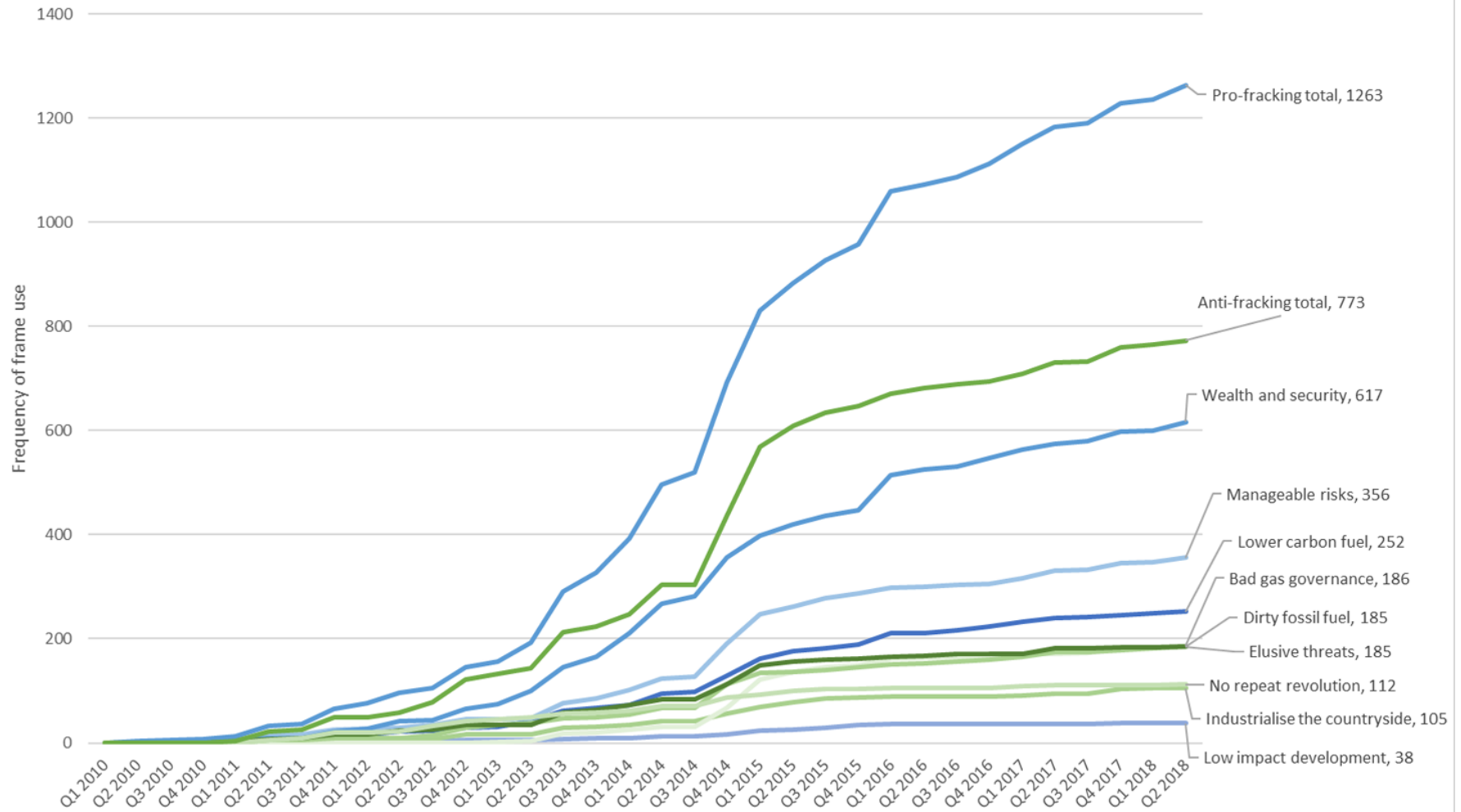
<i>Document type</i>	<i>Number of relevant docs.</i>
Departmental Documents (BEIS, MHCLG, DEFRA)	98
Select Committee reports	18
POST notes, HoC library briefing papers	57
Written ministerial statements	52
Parliamentary testimony	1,297
General election manifestos	14
Policy papers	46
Major speeches (budget, autumn statements, Queen's speeches, party conference speeches)	9
DECC blog	6
Total	1,557

WP2 – the nine key policy frames

Frame	Description	No. of uses
<i>Pro shale development frames</i>		
Lower carbon fuel	Puts gas, including domestic shale gas, forward as an environmentally friendly alternative to coal	295
Manageable risk	Considers hydraulic fracturing to be a low-risk activity that will be successfully managed by 'gold standard' regulations and experienced regulators	407
Wealth and security	Emphasizes the economic and energy security benefits of domestic shale gas production	715
Low impact development	Argues that shale development only generates short-term nuisance impacts (e.g. traffic) that are no different to any construction project	60
		1477
<i>Anti shale development frames</i>		
Industrialise the countryside	Envisions shale gas development as leading to the industrialisation of the countryside	136
Bad gas governance	Criticises the exclusion of local communities, lobbying, and lack of transparency in the dash for gas	235
Dirty fossil fuel	Suggests that developing a domestic shale gas industry is incompatible with the UK's climate change targets and that shale gas should therefore be kept in the ground	213
Elusive threats	Views hydraulic fracturing as a novel and risky process, and questions the adequacy of regulations and the capacity of regulators	260
No repeat revolution	Emphasizes differences in UK context that make a repeat of the US 'revolution' unlikely	125
		969

WP2 – frame use over time

Cumulative frame use in our document analysis corpus, 2010-2018



WP2 – lessons from the framing contest

- The difficulty of crafting resonant, credible frames in largely anticipatory debate over an unfamiliar innovation
- Affected both forms of reasoning based on technical estimates and narrative storytelling
- The failure of the bridging fuel argument
- Largely failed to resonate with policy-makers beyond the Conservative party and was not widely seen as credible amongst the broader public
- Seen as cutting against the grain of common sense
- Shale policy seen as being in tension with emerging discourses around ‘net zero’ and ‘climate emergency’

LETTER

doi:10.1038/nature14016

The geographical distribution of fossil fuels unused when limiting global warming to 2 °C

Christophe McGlade¹ & Paul Ekins²

Policy makers have generally agreed that the average global temperature rise caused by greenhouse gas emissions should not exceed 2 °C above the average global temperature of pre-industrial times¹.

increase in unconventional oil production are incommensurate with efforts to limit average global warming to 2 °C. Our results show that policy makers' instincts to exploit rapidly and completely their territorial fossil fuels are, in aggregate, inconsistent with their commitments to this temperature limit. Implementation of this policy commitment would also render unnecessary continued substantial expenditure on fossil fuel exploration, because any new discoveries could not lead to increased aggregate production.

Recent climate studies have demonstrated that average global temperature rises are closely related to cumulative emissions of greenhouse gases emitted over a given timeframe^{2,3}. This has resulted in the concept of the remaining global 'carbon budget' associated with the probability of successfully keeping the global temperature rise below a certain level^{4,5}. The Intergovernmental Panel on Climate Change (IPCC)⁶ recently suggested that to have a better-than-even chance of avoiding more than a 2 °C temperature rise, the carbon budget between 2011 and 2050 is around 870–1,240 Gt CO₂.

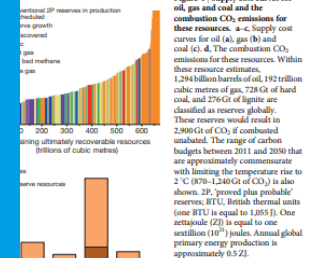
Such a carbon budget will have profound implications for the future utilization of oil, gas and coal. However, to understand the quantities that are required, and are not required, under different scenarios, we first

Department
of Energy &
Climate Change

Potential Greenhouse Gas Emissions Associated with Shale Gas Extraction and Use

Professor David J C MacKay FRS
Dr Timothy J Stone CBE

9th September 2013



WP1 - approach

- WP1 concerns public and community attitudes towards and perceptions of shale gas development
- WP1 also assesses how resonant the policy frames identified in WP2 are with public audiences
- **Mixed methods approach:**
 - 31 interviews conducted between April-June 2019 including recruitment from Rural Fylde (incl. Roseacre & PNR), Coastal Fylde (Blackpool, Lytham), and Wider Region (e.g. Preston)
 - Survey round 1 - 2,148 completed surveys included UK citizens aged 18 and older, stratified into demographic groups which were closely representative of the UK population by country, region and socio-demographics
 - Survey round 2 - 4 nationally-representative samples in parallel (UK, US, MX, AR), ~1800 respondent per national sample

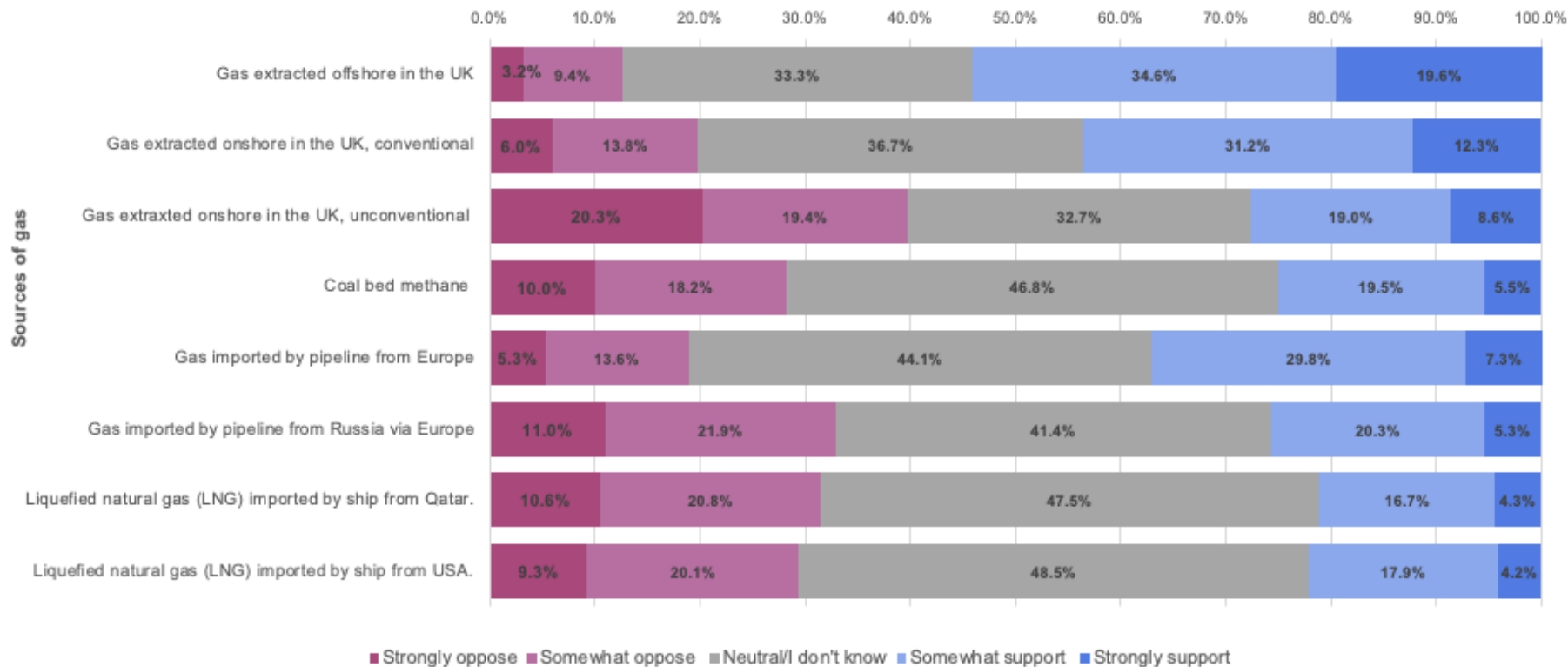


WP1 - lived experiences

Valence	Name	Illustrative quote(s)
Negative	"Horrendous" inquiries and collective trauma	<p>"Fighting a public inquiry is horrendous"</p> <p>"The planning system is good but it's not, you know, for Joe Public to do it."</p> <p>"It's like an emotional rollercoaster. No one will understand how much it's affected us. It's been horrible"</p>
Negative	Community divisions, "abuse" and "threats"	<p>"It was the worst thing I've ever endured ... I needed police protection"</p> <p>"I can't tell you how many abusive and threatening emails I've had."</p> <p>"It's caused a lot of stress in the community, a lot. People's nerves have been frayed"</p>
Negative	Disillusionment, disenfranchisement and "disgust"	"It's disgusting what the central government has done"
Negative	New vulnerabilities, earthquakes and "ruining" lives	<p>"Nothing will make me feel safe about this, I don't want it here full stop."</p> <p>"No one understands how much stress you're going through. It's completely, it's ruined my life"</p>
Positive	Social cohesion and "gelling" together community factions	<p>"What shale gas has done is gelled the community together."</p> <p>"I'm thankful almost that this industry's woke me up to the fact that you can create strong communities"</p>
Positive	Enhanced multi-level environmental "awareness"	"The thing that's changed dramatically ... I now have a growing awareness of climate change and it's made us more aware about fossil fuel extraction"
Positive	Everyday energy security and gas as a "bridging fuel"	<p>"People are not gonna turn their central heating off in the winter. The community needs the energy."</p> <p>"England's not going to survive on wind and solar power tomorrow morning when we all wake up."</p>
Positive	Local labor landscapes and "quality full time jobs"	<p>"We've lost all those quality full time jobs. ... So we need jobs, it's that simple, we need jobs for me."</p> <p>"It is about becoming a center of excellence if you will. So that people could come in and learn."</p>
Dynamic ambivalence	Living with traffic and "vehicles going past the house"	"The road kept getting shut with the protestors and it was just getting causing a nightmare getting to work, that was probably the main memory I've got of it. It was probably only after that that then I think the campaign started against I probably became more aware of the environmental issues"
Dynamic ambivalence	Living with perceived inauthenticity, and "diverted" community resources	<p>"The level of disruption they were causing to local people was just massive."</p> <p>"The protestors have created a lot of negativity on themselves and the kind of disruption they've caused if I'm honest."</p>

WP1 – survey round 1

Based on what you know, how much do you support or oppose government taking action to increase these sources of gas in the UK? (Nationally)



WP1 – frame plausibility

Results, Survey 1

Percent of respondents who indicated the claims of a frame to be “probably true” or “definitely true”.

Resonance	Frames <i>(Sample prompt from questionnaire: “Shale gas development/fracking ...</i>	
 <p>Strong</p> <p>Weak</p>	Industrialise the country-side <i>...will increase traffic in the countryside.”)</i>	72.3%
	No repeat revolution <i>...will not make gas any cheaper for UK consumers.”)</i>	66.6%
	Bad gas governance <i>...has been approved by overriding local decisions.”)</i>	61.1%
	Dirty fossil fuels <i>...will keep us dependent on fossil fuels.”)</i>	57.8%
	Elusive threats <i>...threatens the health and safety of local communities.”)</i>	57.5%
	Wealth and Security <i>...makes us less reliant on other countries for gas.”)</i>	53.0%
	Low-impact development <i>...will cause disturbances that are typical of any construction project”)</i>	50.5%
	Manageable risk frame <i>...is unlikely to cause damage from tremors due UK regulations.”)</i>	37.9%
	Lower carbon fuel <i>...will help address climate change.”)</i>	33.1%

WP3 – approach

- Analysis complete, paper currently being written
- WP3 focused 4 formal, 'invited' forms of public participation:
 - Policy consultation
 - Environmental permit consultation
 - Participation through the planning system
 - Sciencewise dialogue workshops
- Analysed documentation associated with 31 participatory process, conducted 31 local community interviews
- Key questions include:
 - What are the rationales underpinning these participatory opportunities?
 - How are these processes designed and conducted?
 - What is the scope for public influence? Which issues are on the table?
 - How are they perceived and experienced by publics?
 - According to the identified rationales, are they effective?



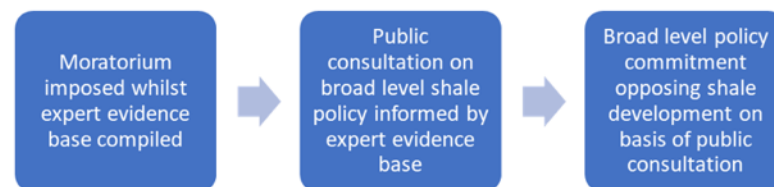
WP3 – key findings

- In general, there has been limited scope for public influence through formal sites of participation
- Narrow range of issues open for consideration:
 - site-specific impacts (planning, permitting)
 - ‘how’ implementation questions (UK consultation, dialogue workshops)
- Broader policy commitments ‘off the table’, Scottish consultation exercise as the exception
- Our community interviews provide evidence that these processes are experienced as tokenistic ‘box-ticking’ exercises by some of those who participate in them

UK model:



Scottish model:



Differences between approach to general policy consultation in the UK and Scotland

WP3 – lessons on formal public participation

- Clear appetite for public participation on broader debates on energy policy and the desirability of shale gas development in general, but no formal process through which such debates could be accommodated (except Scotland)
- Processes with narrower remits therefore inundated with immaterial responses, causing frustration on all sides
- Improve communication/awareness of arguments that are within the scope of particular processes, clear case studies of public influence
- Clarity on scope for local influence on ‘essential’ infrastructure decision-making – avoid overpromising (i.e. localism) and underdelivering
- Early and broad over late and narrow – but potentially consequences for ‘delivery’
- Public participation clearly doesn’t guarantee public acceptance – arguably a better tool for understanding public (un)acceptability rather than shaping it
- UK approach arguably achieved worst of all worlds?



A fiscal regime for shale gas:

summary of responses

Talking “Fracking”

A Consultation on
Unconventional Oil and Gas



December 2013

Thank you! Any questions?

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