



**Northumbria
University**
NEWCASTLE

The social construction of
unconventional gas extraction: Towards
a greater understanding of socio-
economic impact of
unconventional gas development

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Research Questions

How do residents and other local stakeholders (e.g., business owners, natural gas employees, law enforcement, protesters and community leaders) describe their experiences with gas extraction and do their experiences vary according to their race/ethnicity, gender and age and/or the type of natural gas development (i.e., conventional vs. unconventional)?

How do race, ethnicity, gender and age shape resident and *other* local stakeholder mobilisation and antimobilisation efforts?

What social, economic and environmental changes are reported to occur as a direct result of natural gas development? Importantly, how do these changes vary according to the type of development (i.e., conventional vs. unconventional)?

Can LCA be a useful tool for informing national and local debates about hydraulic fracturing? Importantly, is there significant variation between conventional and unconventional gas developments when it comes to LCA?

Work Package 1 (Reviews)

October 2018 to 1 July 2019



Photo Anna Szolucha. Do not copy, post or circulate without permission.

In progress: Output on summarising the results of qualitative research on natural gas development in England.

Benchmark Output

Short, Damien, Stretesky, Paul and Anna Szolucha. Unconventional Hydrocarbons in the UK Energy system: Briefing 7: Anti-fracking Activism and Local Democracy. UKUH.

Published Systematic Review

Stretesky, Paul, and Philipp Grimmer. "Shale gas development and crime: A review of the literature." *The Extractive Industries and Society* (2020).

Work Package 2

(Ethnography KM, EP, PNR, EM & Albury)

1 November 2018 to 31 December 2020

Impact Publications

Szolucha, A. (2018). Mistrust and Earthquakes: Why Lancashire Communities Are so Shaken by Fracking Tremors, *The Conversation*. 14 December 2018.
<http://theconversation.com/mistrust-and-earthquakes-why-lancashire-communities-are-so-shaken-by-fracking-tremors-108108>.

Szolucha, A. (2018). Social harm: Proof of evidence, Appeal by ISLAND GAS LTD, Portside, Ellesmere Port. Appeal Reference APP/A0665/W/18/3207952.

Research Publications

Szolucha, A. (2019). A social take on unconventional resources: Materiality, alienation and the making of shale gas in Poland and the United Kingdom. *Energy Research & Social Science*, 57, 101254.

Aryee, F., Szolucha, A., Stretesky, P. B., Short, D., Long, M. A., Ritchie, L. A., & Gill, D. A. (2020). Shale Gas Development and Community Distress: Evidence from England. *International Journal of Environmental Research and Public Health*, 17(14), 5069.

Szolucha, A. (2020). Why is everyone talking about climate change...again? *Irish Journal of Sociology*, 28(1) 89–96.

In progress: 1 Output on differences and similarities in how people experience fracking.

Work Package 3

(Life Cycle Assessment)

March 2020 to March 2020



Academic Outputs In Progress

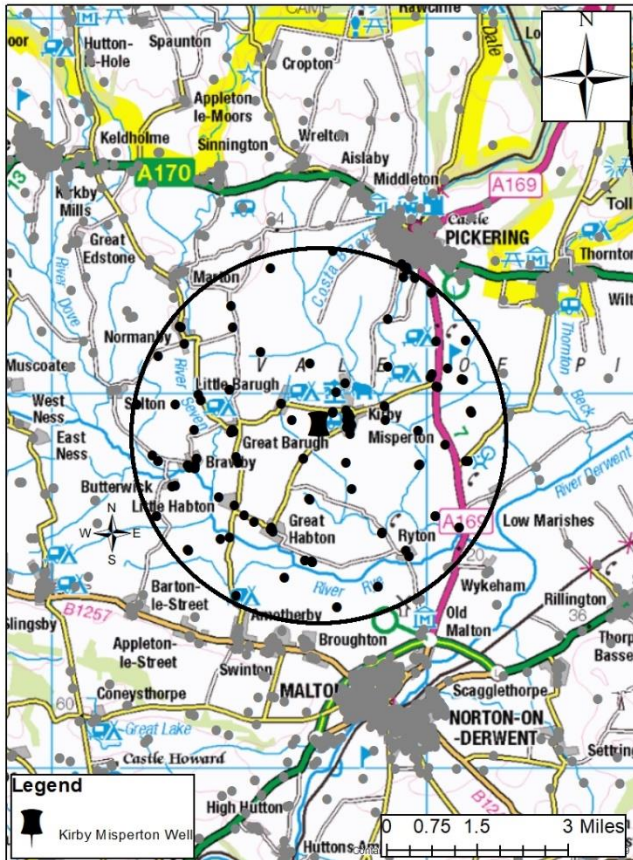
“Assessing the environmental sustainability of decarbonising UK heating by 2050”, it is currently being reviewed by Laurence and we intend to submit it to *Applied Energy*.

Impact Outputs

Laurence Stamford, *Briefing – Shale Gas and the UK’s Low Carbon Transition*, NERC/ESRC Unconventional Hydrocarbons in the UK Energy System (UKUH) Programme, <http://www.ukuh.org/publications/benchmarkreports/>

Peter Slorach and Laurence Stamford, *With decarbonisation firmly on the agenda, is fracking over?*, blog post, NERC/ESRC Unconventional Hydrocarbons in the UK Energy System (UKUH) Programme, <http://www.ukuh.org/researchersperspectives/frackingisoverintheukpeterslorachandlaurencestamford.html>

Work Package 4 (Survey Research) March 2020 to March 2021



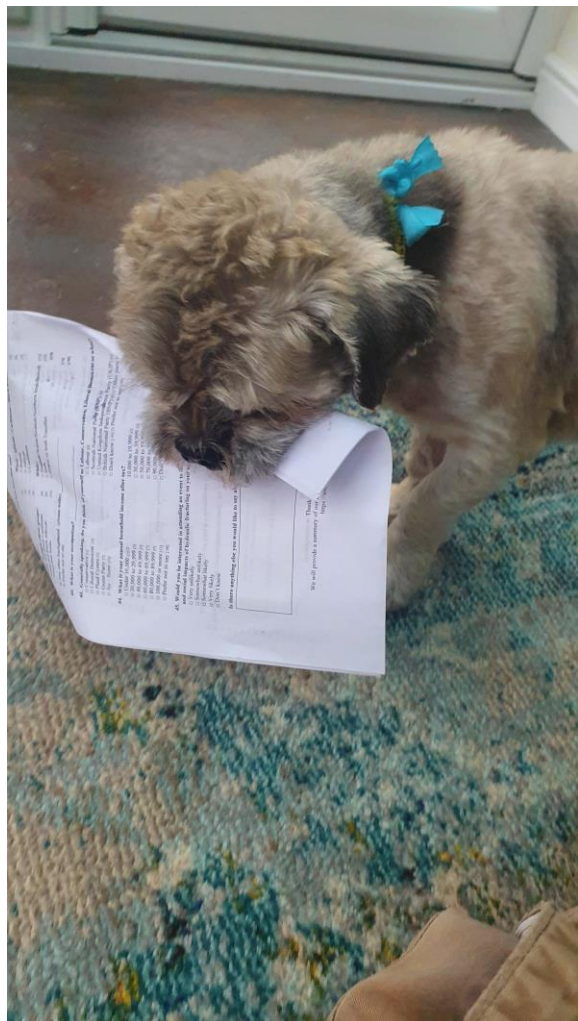
Comparison Sample (no development) - complete (n=753)
Kirby Misperton (unconventional) - completion (n=50 so far, entering; delivered n=200 ... about 25% RR)
Ebberston Plat. (conventional) – underway (n= 500)
PNR (unconventional) – planned (n = 500)
Ellismere Port (combination) – planned (n = 500)
Albury Park (conventional) – planned (n = 500)

Engagement

Trends in First Few Kirby Surveys....

Q48 attend an event

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Unlikely	15	37.5	48.4	48.4
	Somewhat Unlikely	4	10.0	12.9	61.3
	Somewhat Likely	4	10.0	12.9	74.2
	Very Likely	6	15.0	19.4	93.5
	Don't know	2	5.0	6.5	100.0
	Total	31	77.5	100.0	
Missing	DNA	1	2.5		
	System	8	20.0		
	Total	9	22.5		
Total		40	100.0		



Q&A session with Mike Bradshaw