

FACES OF SHALE



North West Energy
Task Force

www.nwenergy.org.uk

FOREWORD



Contained in this short pamphlet are the reasons why ten Lancashire residents support the responsible development of Lancashire's shale gas resources. The ten people included have differing professions and the positive impacts created by the opportunities of shale gas upon them varies.

Nevertheless, all share a common commitment to the North West and are united in the shared conviction that shale gas has a pivotal role to play in the region's future success. This is a diverse group of people though common themes emerge. They include:

- The jobs that shale gas will create across the whole of the North West's economy.
- The investment shale will bring to struggling areas.
- The boost shale will bring to local revenues.
- The security that Lancashire's gas could give the whole of the United Kingdom.

Shale gas has the potential to catalyse the North West; it could help secure key existing industries and develop them in exciting new ways ensuring their lasting and future success. The North West has the opportunity to become a European hub for shale gas; a centre of excellence and the possessor of all the necessary expertise, skills, and resources.

The diversity of views expressed within this booklet demonstrates the breadth of support and the weight of arguments in favour of developing Lancashire's shale gas resources. It makes tangible the everyday benefits that shale could bring to the residents of the North West.

The ten Faces of Shale show that Lancashire gas is a clear choice that we all need to make.

John Kersey

Chairman
Lancashire Branch
Institute of Directors

CLAIRE SMITH

BLACKPOOL-BASED BUSINESSWOMAN



UK-sourced natural gas production has come predominately from the North Sea since the early 1960s, but this supply has been decreasing since 2000. In 2012, production was down 14 per cent compared with 2011 to 452 terrawatt hours.

Until 2000 Britain was self-sufficient in gas and a net exporter. In 2012 we imported 43 per cent of our gas, the highest level since 1976 and this figure is still rising.

Claire Smith is a Blackpool-based hotelier and the President of Stay Blackpool, a trade body representing over 200 hotels and B&Bs.

Claire is married to Mark and is a mother to Ben. Claire loves hotels and has worked in the sector for over 37 years, starting out as a chambermaid whilst still a student in the town. Claire now owns and helps to run two successful hotels – employing ten people.

Claire backs Lancashire's shale gas development because she believes it will bring exciting opportunities to Blackpool, create new jobs for Lancashire's young people and help move Britain away from being dependent on energy from other countries.

'You read about all the trouble going on overseas and you think it's madness to be importing gas when we could be using our own reserves' she said.

Alongside the direct and indirect benefits, developers will also be paying increased business rates as a result of their operations, 100

per cent of which will go directly back to local councils, again benefiting local communities.¹

Claire said: 'I grew-up here in Blackpool during the "glory days." It had such a buzz and an energy. But then we lost our neighbouring industries in potteries, manufacturing, the mills and coal mining. Cheaper airlines and foreign travel also meant we faced increased competition. People stopped coming to Blackpool in the same numbers. This hit us hard and we went into decline. It was really sad. But it is changing and we are now going in a positive direction.

'While we are turning things around and coming back, we desperately need fresh investment in the town.'

Claire added: 'The government should support the development of shale gas because we badly need more and better-skilled jobs, which are more sustainable and less seasonal.'

'We desperately need new industries and their jobs to bring fresh investment into the region.'

1. Subject to pending legislation



JACK WRIGHT

LOCAL FARMER

The development of natural gas from Lancashire shale could help farming remain an important part of the northwest of England's economy. Natural gas typically represents around two thirds of the cost of producing nitrate fertiliser.²

In the UK, the development of natural gas from Lancashire shale will help prevent local fertiliser producers from being driven out of business by cheaper energy abroad, improving both energy and food security.³

Regulations in the UK are extremely stringent with respect to well integrity and control, overseen by the Health and Safety Executive as well as by independent third party well examiners.

Jack Wright is a vegetable farmer from Banks, Lancashire. Cuadrilla Resources has a site next door to his farm. He has lived in Lancashire all his life.

Jack backs Lancashire's shale gas development because he thinks it could lead to cheaper energy and that it is common sense to use our own natural gas instead of importing from abroad. Jack does not believe shale gas operations will adversely impact his farming business.

'I've been a farmer for 60 years. We grow Chinese-style vegetables. We have about 15 acres in total – with about 2 acres for greenhouses,' he says. 'I have a borehole where I get the water from for watering my farm. In the time they [Cuadrilla Resources] have been in the area, and they are operating in front of my bungalow, they have never bothered me. Not in the slightest. I get my water tested every six months by the Environment Agency and Cuadrilla's operations haven't altered the water one iota.'

The industry will strive to ensure jobs and services are created within the local area. Jack said: 'If we do not support it, I could see it being bad news for the UK. I could see industry going abroad.'

'When I was 17 I worked for British Leyland for seven years. At the time, the group employed nearly 240,000 people across the country. Now – I think – it is about 300 in just Lancashire. We import everything nowadays.'

'Why can't we just let them get on with exploring and see what happens? If it doesn't work then it doesn't work. But let's try first.'

2. North West Energy Task Force, What does shale gas extraction mean for farming and agriculture in the North West, November 2014

3. Ibid

KATIE EYRE

FORMER INTERN AT CUADRILLA

The North West is already significantly investing in increased skills provision to allow it to continue as a centre for advanced manufacturing.

The arrival of onshore shale gas operations could have a huge impact on local labour markets, raising employment and wages through access to a new national £33bn supply chain. It could also further increase the demand for both intermediate and specialist skills.

The more the region is able to provide the skills sought by the onshore shale gas industry, the more the overall benefits of its development will stay in the North West.

Katie Eyre, 21, from Poulton-le-Fylde, is a student at York University and a former intern at Cuadrilla Resources.

Katie first heard about shale while in Sixth Form at Baines School in Poulton-le-Fylde and is currently writing her dissertation on the impact of shale operations on water quality. Katie backs Lancashire's shale gas development because she believes it will be good for the local economy.

She said: 'My internship with Cuadrilla was absolutely fascinating. It really opened my eyes to what the industry was doing. I got to learn a lot about regulations and the different standards. From the time I spent working in the gas shale industry I definitely feel reassured that this can, and will be done safely'.⁴

A recent report by EY suggests that for the first 100 pads - 64,500 jobs could be created at peak production.⁵

In November 2014, Blackpool and The Fylde College was announced as the UK hub for a new National College for Onshore Oil and Gas.

Building on the UK's world-leading offshore oil and gas heritage, the National College is being set up in association with the UK's shale industry body UKOOG to meet future skills needs and help the UK to become an international centre of excellence for onshore operations. The College's engineering courses are already oversubscribed as a result.



'Having the National College on our doorstep is a great opportunity for young people in Lancashire. I hope local people don't get put off shale by the scare stories you hear from activists and that they get behind it so Lancashire doesn't miss out on the economic benefits, such as jobs and potential investment opportunities'.

4. Royal Society, Shale gas extraction in the UK: a review of hydraulic fracturing, June 2012

5. EY, Getting ready for shale gas, April 2014

ARTHUR PARSON

ASSISTANT DRILLER FOR P. R. MARRIOTT

The North West is already significantly investing in increased skills provision to continue as a centre for advanced manufacturing.

The development of natural gas from shale has the potential to radically improve the North West economy, in particular some of the more deprived areas of the Fylde Coast.

Former HGV fitter Arthur Parson, 35, joined P.R. Marriott three years ago and has worked his way up from Technician to Assistant Driller.

The father-of-two, who lives in Preston where he grew up, said: 'So much was put into our training right from the start. It's a job I enjoy. I enjoy coming to work. Not many people can say that. I do long hours but there is something special about it. I feel lucky to be a part of it. I feel anyone can get in right at the bottom and have a fantastic career as long as they have the right attitude. One day my children will follow in my footsteps into the shale industry.'

Arthur added: 'I understand why some people are concerned by it because it is new to them. But I have seen it from the inside and everything is done to the highest standard. So much time and energy is spent on safety. Cuadrilla just want to make sure everything is done right. It would be a shame to lose out because of scaremongering. The scare stories are well off what we do.'

As well as direct financial benefits from the industry and government - indirect job numbers, salaries and infrastructure are also expected to improve significantly.⁶

Arthur said: 'Shale gas exploration is an opportunity for us all. It can benefit the whole of Lancashire a lot: just look at what oil drilling did for Aberdeen. I'm hoping it can do the same for us. It could be a good boost for jobs. It would be such a shame to miss an opportunity like this.'

6. North West Energy Task Force, Exploring Shale Series, 2014: <http://www.nwenergy.org.uk/policy>



MARCUS ADDISON

OWNER OF ADDISON GROUP, LANCASHIRE



The development of shale gas in Britain could lead to more reliable energy and a new £33bn supply chain supporting 64,500 jobs, according to global finance firm EY.⁷

In the US, shale is expected to create an extra one million American manufacturing jobs by 2025.⁸ Just as Aberdeen benefitted from North Sea oil, shale gas could help Lancashire become the shale capital of Europe.⁹

Today, the North West remains a leading centre of British manufacturing. Fylde-born Marcus Addison is Managing Director of Lancashire-based Addison Group, which includes three companies and employs over 250 staff.¹⁰

His client list includes several household names. The group of engineering companies has a £25m turnover, specialising in the aerospace, chemical, energy and medical sectors.

Marcus believes the key to the success of the shale gas industry will be in being prepared. He says that once people see the benefits, support will snowball.

'Whilst we have no experience specifically in the shale gas industry, we would expect that from our team of 250 engineering staff, largely based on the Fylde coast, we can play an active part supporting shale gas extraction,' he said.

The development of natural gas from shale has the potential to radically improve the North West economy, in particular some of the more deprived areas of the Fylde Coast. As well as direct financial benefits from the industry and government - indirect job numbers, salaries and infrastructure are also expected to improve significantly.¹¹

While direct comparisons are always difficult, a recent US study found that in areas of America with at least one shale well personal incomes rose by eight per cent as a result of the boost in local economic activity.¹²

The more the region is able to provide the skills sought by the onshore shale gas industry, the more benefits of its development will stay in the North West.

Marcus said: 'We expect this industry will not only safeguard our existing jobs in the local area but will also allow companies like Addison, who are engaged in supporting the industry, to work with the local colleges to develop new skills for apprentices and trainees.'

'We do have a serious skills issue in our [the manufacturing] industry and we are already working with local colleges like Blackpool and Fylde College, but the shale industry would channel more money and investment into skills and we would expect the industry to also sustain long term careers well in to the future.'

Marcus added: 'Whilst I understand some of the arguments against the shale gas industry from an environmental perspective, I have listened very carefully to the independent specialists, who have explained in great detail the process of shale extraction. I am confident that the controls and regulations imposed on the industry will mean that shale gas extraction will be safe and more environmentally friendly than coal.'

7. EY, Getting ready for shale gas, April 2014

8. PWC, Shale gas: A renaissance in US manufacturing?, February 2012

9. North West Energy Task Force, Exploring Shale Series, 2014: <http://www.nwenergy.org.uk/policy>

10. New Economy, Manufacturing and nuclear in the North West, September 2013

11. North West Energy Task Force, Exploring Shale Series, 2014: <http://www.nwenergy.org.uk/policy>

12. Fracking Growth, Thiemo Fetzer, Centre for Economic Performance (London School of Economics), June 2014

JULIE SAYER

BLACKPOOL-BASED BUSINESSWOMAN

In Blackpool the accommodation, food and beverage sectors account for 6.8% of all jobs. However, since the heyday of the 1980s average visitor numbers have declined by a third and visitors now stay on average for a shorter period.

In the USA shale gas development has resulted in a boom for the local hospitality industry. In some regions there have been reports of room occupancy rates ranging between 70% and 90% in hotels near shale sites.¹³ In the UK, the development of North Sea oil has meant that RevPAR (revenue per available room) in Aberdeen is second only to London.¹⁴

Julie is the part owner of Langtrys Hotel. Despite the decline of visitors to Blackpool Julie Sayers and partner David Webb bought the three star North Shore Bed & Breakfast in 2005 and spent £200,000 transforming it into a five star boutique style hotel.

She has two grown up children and an 11-year-old grand-daughter who lives with her.

Julie backs Lancashire's shale gas development because she thinks it will create jobs for local people and provide opportunities for the hospitality industry.

'Tourism has been diminishing in Blackpool over the last few years and so we need something else and hopefully something that youngsters can have a future in. I know that they have invested heavily in Blackpool and The Fylde College and businesses such as ours have invested to be ready for corporate guests,' she said.

Julie said: 'We came to Blackpool because of good childhood memories, the season is longer and property prices were affordable.' In addition to the very direct injection of cash into communities, industry participants will strive to ensure jobs and services are created within the local area.

'If we stayed in the area it would be great if our grand-daughter had the option of staying in the area too because there was a thriving industry,' Julie added.

13. Hotel News Now: <http://www.hotelnewsnow.com/article/10723/US-hotel-industry-prospers-from-shale-boom>

14. PWC, Buoyant energy sector helps ensure Aberdeen's hotels are second only to London, 11th September 2013

NORMAN TENRAY

PRESIDENT OF THE NORTH AND WESTERN LANCASHIRE CHAMBER OF COMMERCE AND CEO OF OBAS

Shale's possible £33 billion supply chain could lead to different specialisms across the North West; Preston could see a resurgence in construction and manufacturing jobs, Blackpool in the hospitality industry, and Manchester and Liverpool could provide financial, administrative and legal support.

Norman Tenray is President of the North and Western Lancashire Chamber of Commerce and CEO of construction supplies company OBAS, which has around 50 staff and is based in Longridge, Preston.

Well known for his corporate and charitable activities in 2014 he was awarded Regional Entrepreneur of the Year by the British Chambers of Commerce and was a finalist in the national Entrepreneur of the Year.

Norman believes the shale gas industry will bring opportunities to every area of business in the North West.

'We are currently only at the test stage of shale gas and already it has brought huge amounts of jobs and opportunities to the area. Once we

move to the second phase it will bring opportunities to almost everybody,' he said.

As well as direct financial benefits from the industry and government - indirect job numbers, salaries and infrastructure are also expected to improve significantly.¹⁵

While direct comparisons are always difficult, a recent US study found that in areas of America with at least one shale well, personal incomes rose by eight per cent as a result of the boost in local economic activity.¹⁶

Norman said: 'We cannot be scared to embrace new technologies and opportunities. It could create a real economic benefit. Everyone talks about a northern powerhouse but that does not really include Lancashire. What we need in Lancashire is something to pin our hats to. We need a new USP (unique selling point) for the area and need to move forward in a united cohesive way.'

Today, the North West remains a leading centre of British manufacturing.



'Without a shadow of a doubt it will rejuvenate manufacturing in the North West. We have a manufacturing base that has had no support except from the aircraft industry. This shale gas industry will give us something to create confidence in the region for the next 25 years,' Norman added.

15. North West Energy Task Force, Exploring Shale Series, 2014; <http://www.nwenergy.org.uk/policy>

16. Fracking Growth, Thiemo Fetzer, Centre for Economic Performance (London School of Economics), June 2014



PAUL HENNESSEY

OIL AND GAS BUSINESS MANAGER AT ATG UV TECHNOLOGY

The UK and the North West already has considerable expertise in the offshore energy industry, containing some of the world's leading companies. The development of Lancashire's shale would lead to significant investment and innovation in these world leading industries.

Paul Hennessey is Oil and Gas Business Manager at atg UV Technology which manufactures water treatment packages for water across a range of market sectors. They clean flowback water that returns to the surface following shale gas recovery in the same way drinking water is treated, using the chemical free technology of UV light.

Paul said the growth of the shale gas industry would enable him to significantly increase the size of his workforce.

'If the shale industry really took off in this area we would look to employ another 40 to 50 people – we are currently at 49.'

Regulations in the UK are overseen by the Environment Agency, DECC and the Health and Safety Executive, as well as by independent third party well examiners.

Paul said: 'I am certain that safety concerns are being properly dealt with. Unfortunately we are

suffering from being the second major country to do it. In the US a few early bad examples of how to manage operations, together with a weaker regulatory regime have given the industry a bad name. We are now all being tarred with that same brush.

'The technology is improving so fast. Atg UV Technology have helped a number of large oil field service organisations to significantly reduce their use of chemicals, and in some circumstances go chemical free on a lot of their fracks. By using our knowledge of offshore produced water, we have developed solutions for removing chemical biocides from the process by using UV light to significantly reduce bacteria in the water and fracking fluids.' Paul hopes that the government will give the green light to explore for shale so that the North West can lead the rest of Europe.

'The eyes of Europe are on us,' he said. 'Britain is now in the lead. When oil was found in the North Sea, Americans in cowboy hats travelled to Aberdeen to show us how to drill for it. If we get it right with shale there could soon be Lancastrians in flat caps across the whole of Europe showing our European neighbours how it's done. The North West will become a centre of excellence exporting our skilled workforce across Europe.'

PAUL LINDERMAN

OWNER OF PAUL LINDERMAN LETTINGS



The North West contains some of the areas in the UK struggling the most economically. Output per head in the North West is around 87% of the UK average. Whilst the region contains some of the UK's most prosperous areas; including Greater Manchester South and Cheshire. Unfortunately, other areas such as Blackpool are only 61% as productive as the UK average, and have been falling further behind over the last decade.¹⁷

Paul Linderman is a director of the Berkeley Apartments, which lets 20 serviced apartments in Blackpool and owner of Paul Linderman Lettings which operates a portfolio of properties in the North West.

He believes the prosperity of the hospitality industry is closely tied to the prospects for the North West economy as a whole.

Lancashire has the opportunity to make itself Europe's centre for the shale gas industry, just as Aberdeen thrived off the back of North Sea Oil. Locations near shale developments in the US have seen a boom in demand for hotel rooms and the wider hospitality industry.

Shale is predicted to create around 64,500¹⁸ jobs across the UK economy as a whole over the next two decades. Some 4,500 of those jobs could be in the hospitality sector.

Paul backs Lancashire's shale gas development because he believes it will bring exciting opportunities to the area, create new jobs for Lancashire's young people and help move Britain away from being dependent on energy from other countries.

'I see it as frack or fail. We need to evolve or we will have a very damaged community,' he said. 'On the one side we have a brighter future with an industry that requires highly skilled jobs and trades, and on the other we will keep getting poorer.'

'At the moment if you have children in Lancashire they only have limited options. They can get low paid work or go on benefits or have to leave. The shale industry will hold families together. People will not have to leave to find work.'

He also believes investing in shale will help reduce the seasonality of Blackpool's economy which he thinks will benefit everyone.

He said: 'We will be looking at higher occupancy levels which will benefit shops, restaurants, cafes and everyone in the hospitality industry. It will mean year round jobs rather than insecure seasonal ones.'

'I really cannot see any negatives,' Paul added. 'Producing our own gas rather than importing it will benefit the whole country not just the local area.'

17. Regional Gross Value Added (Income Approach) NUTS3 Tables, ONS, July 2014

18. Getting ready for UK Shale Gas, Ernst & Young, April 2014



WILL NICKSON

SIXTH FORM STUDENT

The development of natural gas from Lancashire's shale is a cause for optimism amongst young people in Lancashire for their own, the region's, and the UK's future. Many consider that shale will help the UK deal with some of its most pressing challenges and simultaneously create new possibilities for local young people.

Will Nickson is an eighteen year-old sixth form student from Lytham studying geology. A large proportion of his course has involved the study of oil, energy, and its extraction. His studies have included a trip to Elswick. Will plans to study physical geography at university.

Natural gas emits roughly half as much carbon dioxide as coal. Will believes that shale gas could help the UK meet its own emissions targets. 'Shale is a really good thing, it bridges the gap between renewables and non-renewables. Also it is exceptionally reliable.' Shale gas will help the UK make the transition to a low carbon future in an economic way.

For Will, shale is a game-changing and misunderstood technological solution to the UK's energy problems. He is excited about it and believes that concerns stem from a lack of information: 'from what I've learnt and seen myself there is no issue with safety, because

there's lots of precautions taken. I don't think anything will happen, but, there is so much in place if it ever did. People have been misinformed. There is a serious lack of knowledge and there has been a lot of looseness with facts. If people came and saw a site their concerns would be completely allayed'.

Will believes that shale is not only good for the UK and Lancashire, but will directly benefit him and his peers. 'Shale will help local young people massively. There will be more highly skilled jobs around. It will encourage young people to stay in the area and to return after university.' According to a report by EY, shale gas could support 64,500 jobs. Many of these jobs would be in highly skilled areas.¹⁹ Having seen the industry develop in the North West from the start, Will is personally interested in working in it.

Will considers that his peers 'are very much for shale. We are always discussing it. When anti-frackers came into our school we were correcting them.

For Will and his friends shale presents the North West with a great chance for a greener, more secure, and a more prosperous future.

19. EY, Getting ready for shale gas, April 2014

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