

# U - Gas News Report

Unconventional Gas Activities in the World

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by *Constancio Silva*

## N° 96 – February 2015

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# SHALE GAS

## EXPLORATION

### ROMANIA:

#### Chevron gives up on Romanian shale-gas project

The US energy giant Chevron terminated its operations in Romania due to poor exploration results and prolonged protests by environmentalists. The US company is changing policy and now switching its focus to home soil and Africa. Last month, Chevron announced it was halting all the projects in Poland, and also terminated shale-gas agreements in Lithuania and Ukraine. On 4 February, the energy firm announced that it acquired exploration interests in Mauritania. (February 23, 2015)

02/23/2015

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### POLAND:

#### Chevron pulls out of Polish shale enterprise

Chevron has announced that it is to **close its exploratory bids to find shale gas in Poland.**

The news marks a **further setback for Poland's bid to broaden its energy portfolio**, with Chevron's exit following on from those of companies including Marathon Oil, Exxon Mobil and Total. Chevron affirmed in a statement that **"the opportunities here no longer compete favourably with other opportunities in Chevron's global portfolio."**

The company has already shut down its operations in Lithuania, and its future in Romania and Ukraine is uncertain.

The Polish government championed six-year tax breaks for companies involved in the bid to find shale gas.

Earlier, some companies had pulled out owing to a lack of clarity in laws governing the enterprise. America's Energy Information Administration (EIA) had estimated that Poland could have the largest shale deposits in Europe (5 trillion cubic metres), but more recent estimates by Poland's State Geological Institute have been lower, at 345.7 billion cubic metres.

Poland is currently engaged in a wide-ranging bid to broaden its energy portfolio. Besides shale and Liquefied Natural Gas (LNG) programmes, the government is also planning for the first part of a nuclear power station to be up and running within a decade. (February 2, 2015)

02/02/2015

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**UNITED KINGDOM:**

**Cuadrilla CEO Says Proceeding With Shale-Gas Development in U.K.**

Cuadrilla Resources Ltd. is proceeding with the development of shale gas in northern England even as environmental opposition grows and other regions impose temporary bans on drilling.

"Where we are in Lancashire, we are still going forward," Chief Executive Officer Francis Egan said Tuesday on Bloomberg television. **"We have all the permits from the environment agency now."**

Cuadrilla faced a setback last month when planners in Lancashire County Council recommended rejecting its applications to drill at two sites. The final decision was delayed to April after the company asked for an extension to address residents' concerns about traffic and noise. (February 18, 2015)

*02/18/2015*

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**UNITED KINGDOM:**

**Fracking shouldn't be ruled out, says Oil & Gas UK**

Fracking will be significantly restricted by new regulations.

Government should allow firms to continue searching for onshore unconventional gas supplies to meet the country's future energy demand, says Oil & Gas UK.

Speaking at the Aberdeen conference, Oil & Gas UK chief executive Malcolm Webb said: "I don't like this word unconventional because I think it is not unconventional - it is normal natural gas.

"We should be looking on and offshore for that, we should be exploring all avenues because I believe that we are going to need all of it.

"The onshore unconventional are not likely to make a major contribution to the gas supply situation in this country for eight to ten years, but that doesn't mean to say that we shouldn't be looking.

"The North Sea is still the big producer and it's the North Sea that carries you in the short term."

Meanwhile, new analysis suggests that almost all the areas being made available for fracking in England will be hit by new regulations restricting the controversial process.

Almost half (45%) of the 931 licence blocks in England would be significantly affected by the changes, with at least half of the area they cover overlapping with one or more of the protected areas. (February 2, 2015)

*02/03/2015*

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**GERMANY:**

**German government approves fracking**

**The German government has tabled a draft law permitting fracking in the country, EurActiv Germany reports.**

After a long debate over the use of fracking technology in Germany, the federal government issued a draft law allowing the controversial gas extraction method under certain conditions and in isolated cases.

German environment minister Barbara Hendricks made every effort to dispel concerns over the controversial gas extraction technology.

Many environmental protectionists however, remain sceptical.

The draft law allows fracking in shale and coal bed rock starting at a depth of 3,000 metres. In addition, the method is permitted for testing purposes above 3,000 metres.

A body of six experts selected by the German government will decide whether the risks related to fracking above 3,000 metres are controllable and should be allowed for commercial purposes. (February 16, 2015)

*02/17/2015*

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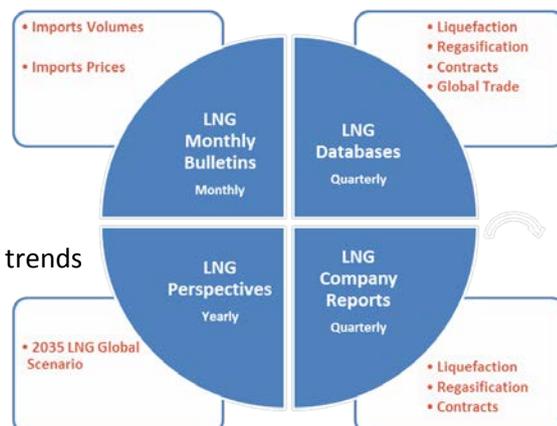
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## **UNITED KINGDOM:**

### **Grangemouth plant could shut in 15 years without fracking**

SCOTLAND's largest petrochemical plant **could close in 15 years unless an indigenous shale gas industry can be developed**, according its owner.

Chemicals giant Ineos says the recently approved practice to import cheap shale gas from the USA for use in its chemical plants will not be cost-effective in the long term.

The company, which runs the huge refinery and petrochemicals plant at Grangemouth, on the Firth of Forth, **recently acquired 729 sq miles of fracking exploration licences in central Scotland.**

But the firm says the Scottish Government's moratorium on granting fracking licences could prevent the shale gas industry from developing in Scotland.

The Scottish Government did not respond to the Ineos claim, except to say that the question of licensing powers for onshore oil and gas is subject of a consultation.

The Ineos move for licences would make it one of the biggest shale gas players in the UK.

It has already invested in an ethane supply project at Grangemouth which will allow the firm to import, store and use cheap shale gas from the US.

Ineos Upstream chief executive Gary Haywood said it was not a long-term solution and was only expected to cover Grangemouth's needs for the next "10 to 15 years".

Commenting on the future of the plant without an indigenous shale gas supply, he said: "I think it is going to be very difficult because when you are shipping in material of that nature you are always at a disadvantage.

"It is a very special situation at the moment... with ethane being available in the US at very low prices, because of the rapid increase in production and the lack of demand in the US.

"That has meant we have been able to get that ethane at very, very cheap prices, relatively speaking.

"We can't see that going on. Unless we can develop an indigenous source, it is unlikely that the cracker (at Grangemouth) has a long-term future."

Scottish Conservative energy spokesman Murdo Fraser said: "This warning shows just how crucial it is for Scotland not to be left behind on fracking. It has revolutionised the US energy economy.

"It makes absolutely no sense for Grangemouth to be refining shale from across the Atlantic, while the SNP and Labour here either want to ignore fracking or ban it altogether.

"This vital plant has already been to the brink in recent years - we should take action now to ensure it doesn't return there any time soon."

A Scottish Government spokesperson said: "The consultation will allow everyone with a view on this issue to feed it into government.

"Industry bodies including Ineos and the UK Onshore Operators Group welcomed the opportunity to engage in the consultation and environmental organisations including Friends of the Earth Scotland and WWF Scotland also both welcomed the announcement." (February 11, 2015)

## **POLAND:**

### **PGNiG continues Shale Gas work in Poland**

Poland's PGNiG said it will assess its shale plans in the Tomaszów Lubelski concession after an analysis of the work done in the area.

'At present, PGNiG is analysing the results of work carried out in the Tomaszów Lubelski licence area. Upon completion of the analyses, PGNiG will decide whether to continue activity in the area, including in particular whether to drill a horizontal well and carry out a fracturing treatment' reads a note released on Tuesday.

The company said that it has fulfilled the agreement with Chevron for the Majdan Sopocki well.

Last week, Chevron followed 3Legs Resources, ExxonMobil, Talisman and Marathon to pulled out from shale operations in Poland. International companies' exit left local investors in the driving's seat. The majority of the shale activity is now in the hands of PGNiG, Orlen and Lotos.

Earlier this year, PGNiG announced its intention to increase oil and gas output by 67% over the next 7 years.

PGNiG commenced the drilling on the Tomaszow Lubelski concession in March 2012. The well is the third one drilled by the company in search of shale gas in the country.

Polish Prime Minister Ewa Kopacz said that Poland will continue drilling for shale gas despite Chevron withdrawal.

"Shale gas and energy security will still be our priority," Kopacz told a news conference on Tuesday.. (February 3, 2015)

*02/04/2015*

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## **CHINA:**

### **Shale gas exploited in north China**

A six-meter-high industrial gas flow was discovered at a shale gas well in Inner Mongolia Autonomous Region, marking a breakthrough in shale gas development in north China, local authorities said Sunday.

The well, based in coal-rich Ordos City, is 3,568 meters deep. The maximum daily gas flow of the well is **50,000 cubic meters and has a daily production capacity of 19,500 cubic meters**, according to the regional land and resources department.

More than **87%** of the shale gas discovered at the well is methane, making it a potential high-yield well, according to the department.

The date for commercial development of the well is not yet known. China's reserves being invested in for exploration have hit **130bcm**. The Fuling field based in southwest China's Chongqing Municipality is expected to become China's first shale gas field with an annual production capacity of **10bcm in 2017**. (February 16, 2015)

*02/16/2015*

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## **SOUTH AFRICA:**

### **Zuma hints at tapping into Karoo shale gas**

South Africa is looking to source gas from neighbouring countries as part of its energy mix, President Jacob Zuma said on Thursday. Noting that South Africa would be looking to various forms of energy, including hydro power, gas, renewable fuel and nuclear power to face up to the current energy challenge, he said: "We have discovered shale gas deposits in our own Karoo region."

In an indication that the government is pondering making gas a strategic resource, he said Operation Phakisa - which focuses on the ocean economy - promised to unveil "more oil and gas resources, which will be a game changer for our country and region". In December former Finance Minister Pravin Gordhan, who is now local government minister, said his department was poised to assist municipalities with meeting the necessary infrastructure requirements "and related services" to hydraulic fracturing for shale gas in the Karoo. (February 13, 2015)

*02/13/2015*

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## **PRODUCTION**

## **ALGERIA:**

### **Algeria sticks to shale gas development**

Algeria's state energy company Sonatrach will press ahead with plans to develop shale gas reserves and refuses to yield to protests by local communities and environmental groups, its interim chief executive officer said. Algeria, Africa's largest natural gas producer, will need **55bcm** of gas in 2025 compared with **35bcm** this year, Sonatrach Interim CEO Said Sahnoun said.

Algeria's gas exports have declined since their 2005 peak of **65bcm**, with local consumption rising and production falling. Projects were delayed by a 2010 corruption probe at Sonatrach and a 2013 attack on the In Amenas gas field operated by BP PLC and Statoil ASA. The North African nation supplied **47bcm** of gas to overseas buyers in 2013.

The country has estimated recoverable shale gas reserves of **741tcf (21tcm)**. (February 10, 2015)

*02/10/2015*

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## SAUDI ARABIA:

### Aramco extends bid for unconventional gas work

Saudi Aramco has extended the deadline for companies to bid for work on its unconventional gas facilities in the north of the country, signaling it remains committed to developing shale gas deposits, industry sources said.

The project, known as System A, will involve building processing facilities, wellheads and pipelines for gas in Turaif, where a big mining project called Waad Al-Shamal is under development. No estimate for the total value of the contracts was given.

"They extended - the bid closing date now is in March," said a source, adding that Saudi Aramco had sent companies additional requirements that would need their study. Bids were originally due to close in early December and the deadline has been extended several times, most recently to March 15. There was no immediate comment from Saudi Aramco.

Meanwhile, several companies have prequalified for another unconventional gas project involving pipelines, also in northern Saudi Arabia. That project, known as System B, is five times as big as System A, according to one source.

Saudi Aramco's chief executive Khalid Al-Falih told a conference in Riyadh last month that Aramco had invested \$3 billion in developing unconventional gas resources and had earmarked an additional \$7 billion for it.

The Kingdom has made appraisals of unconventional gas potential in its northwest, Eastern Province and Empty Quarter. It holds the world's fifth-largest proven reserves of natural gas, and expects domestic demand to almost double by 2030 from 2011 levels of 3.5tcf per year. (February 23, 2015)

02/23/2015

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## CHINA:

### China's shale ambition: 23 times the output in 5 years

China is in the early stages of a fracking revolution, attempting to copy the rise in U.S. shale-gas production in an effort to combat unhealthy levels of pollution and meet a surge in energy demand.

By 2020, China—the world's largest energy consumer—aims to produce 30bcm of shale-gas a year, up from the current level of 1.3bcm, Chen Weidong, renowned energy expert and research chief at CNOOC said at the International Petroleum Week conference on Wednesday. That would take **fracking output from just 1% of all of China's gas production to 15% in five years.**

"Last year, China drilled **200 new wells [bringing the total to 400]**, and we'll add a few hundred a year for sure. No problem," he said, confirming earlier government goals of reducing heavy dependence on coal, which accounts for about two-thirds of the country's energy consumption. (February 11, 2015)

02/12/2015

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22-24, April | Crowne Plaza Riverside Hotel, Chongqing

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With the support and suggestion of CNPC, Sinopec, CNOOC, Shanxi Provincial CBM Association and International Energy Agency, GICC Group will continue to organize the 7th China Unconventional Oil & Gas Summit and Exhibition 2015 (UOG 2015) in Chongqing, China during 22-24, April, 2015. We are expecting more than 30 speakers, 30 sponsors and exhibitors, and 200 delegates from both China and Overseas in this great event. We believe our UOG 2015 will be the best platform for you to learn about the unconventional oil & gas market and policy of China, communicate and do networking with china unconventional oil & gas players and develop your business in China.

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**CHINA:**

**China's Chongqing Plans to Have Shale Gas Production Capacity of 30 Bcm by 2020**

China's Chongqing municipal government last week announced plans to build shale gas production capacity of 30 billion cubic meters (bcm) by 2020 with an annual output of 20 bcm.

According to the plan, the city will implement strategies for vertical integration in the shale gas industry. It intends to invest in exploration and development, equipment manufacturing and cluster development to create shale gas development zone. (February 3, 2015)

*02/04/2015*

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## **UNITED STATES:**

### **Firm finds niche in shale drilling for treating wastewater**

The way Aquatech figures, it makes more sense to treat shale gas wastewater where it's born — at the well — than to treat it off-site.

The Canonsburg-based company treats and recycles industrial wastewater with a growing division dedicated to water-intensive shale gas drilling operations.

"We feel if you can reuse the water, that's the cheapest mode of disposal," said Devesh Mittal, vice president and general manager for the company's shale gas division. "If you can take it and deal with it as fast as you produce it, then you're doing your job."

As shale drilling grew up around the company in Western Pennsylvania, the company began developing technology and exploring treatment options to help gas companies, Mittal said.

"That kind of became an entrepreneurial effort, like, 'Hey, this is in our backyard, we should solve this problem,' " he said.

Aquatech is targeting shale drilling clients with mobile water treatment units that are driven on to well pads to clean and recycle water on site. The company develops modular treatments stations that can be broken down, shipped to well pads and rebuilt on site. Its on-site delivery service distinguishes it from other water treatment companies, Devesh Sharma said.

"You end up designing technology on wheels because the goal line's always moving," Sharma said. The company would not say how much one of its units cost but said the price is not prohibitive. Water treatment is typically contracted out by exploration and production companies like other oil field services, he said.

Space in injection wells and storage ponds is limited, Sharma said, and at some point, recycling all the water may be the only option.

Figuring out how to remove all dissolved salts from shale drilling wastewater, known as desalination, is particularly tricky in the Marcellus shale, which yields water with more salt than other shale plays, Mittal said.

"If we can solve the problem here, we can solve the problem anywhere," he said. (February 4, 2015)

*02/05/2015*

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## GENERAL INFORMATION

### GERMANY:

#### German government under pressure to legalize fracking

Germany has proposed a draft law to allow commercial shale gas fracking, overturning a moratorium that has been in place for the last two years.

The proposal has drawn fire from environmentalists who have urged people to protest before the exploration begins. The government has been under pressure from the energy industry lobby to allow fracking citing rising energy costs in Germany and cheaper gas in the US, due to fracking's popularity in North America.

Commercial fracking for shale gas and coal bed methane would be banned at levels below 3,000 meters, but allowed for exploration at shallower levels, subject to the assessment of the expert panel. The draft law would reportedly affect only hydraulic fracturing for shale oil and tight gas in water protection and spring healing zones.

Germany is estimated to have up to **2.3tcm of shale gas reserves**. Under the current fracking ban, there has been a decline in domestic production. If fracking is allowed, domestic natural gas production could go up, with fuel and electricity prices going down in Germany, which has some of the highest electricity prices in the EU. (February 15, 2015)

02/16/2015

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**UKRAINE:**

**Kiev sued by shale natural gas explorer**

JKX Oil & Gas, a company that bet on Ukrainian shale gas potential, said Monday it launched legal action against Kiev, claiming treaty violations.

**"JKX is seeking repayment of more than \$180 million in rental fees that its Ukrainian subsidiary has paid on production of oil and gas in Ukraine since 2011,"** the company said in a statement.

The company last year said new budget measures passed by the Ukrainian government meant higher taxes for the oil and gas industry in the country. The most significant, it said, was a move to nearly double the tax on gas production to close to 55 percent.

JKX, which has headquarters in London, said the market available to private gas producers in Ukraine was contracting, noting the competition for industrial customers was becoming "intense." In January, the company said the economic climate in Ukraine is no longer conducive to continue investing in shale natural gas opportunities

The company said Monday it started arbitration proceedings against Ukraine under a bilateral investment treaty between the British and Ukrainian governments.

"In these proceedings, JKX is seeking compensation for the losses it has suffered from Ukraine's treaty violations, including Ukraine's failure to treat JKX's investments in a 'fair and equitable' manner and failing to comply with commitments made by Ukraine in respect of JKX's investments," the company said.

The decision comes less than a week after Ukraine secured \$17.5 billion in guarantees from the International Monetary Fund. (February 16, 2015)

*02/17/2015*

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## **UNITED KINGDOM:**

### **Shale gas support and opposition ‘balanced’**

A new online poll of 1,000 respondents found 36 per cent in favour of shale gas extraction and 40 per cent opposed.

But a further 24 per cent are “don’t knows”.

The poll, conducted by Usurv.com asked participants “Should fracking go ahead in the UK?” with four responses to choose from.

It found that 25 per cent of respondents said yes, fracking should go ahead in the UK.

A further 11 per cent also said yes – but qualified this support by saying they wouldn’t want it where they live. Just over 24 per cent appeared agnostic, saying they didn’t know whether fracking should take place in the UK, with slightly under 40 per cent of respondents saying it shouldn’t.

Preston businessman Lee Petts, chief executive of the Onshore Energy Services Group, said: “This latest poll reaffirms much of what we already know – that support and opposition for shale gas extraction are relatively balanced, with a sizeable proportion of the public undecided or ambivalent either way.

“Earlier, more detailed surveys appear to suggest that the more informed people are, particularly about the regulatory oversight and the social, economic and environmental importance of gas in the UK, the more supportive they become.” (February 4, 2015)

*02/04/2015*

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