

Fracking: the State of Affairs in Other Countries

The North American "Miracle" and Expectations in Other Countries

"The only danger with fracking is not following in the footsteps of the US." That was the emphatic reply of Spanish Minister of Industry, Energy, and Tourism José Manuel Soria when asked to comment on the issue. Mr. Soria was referring to the much-lauded miracle of shale gas which has taken place in the United States over the last decade, which has even led President Obama to claim last year that the country has enough natural gas to cover consumption for the next 100 years. The latest forecasts by the US Energy Information Administration (part of the US Department of Energy), published in early June of 2013¹, claim that there, shale gas has reached 40% of total natural gas production and shale oil 30% of total petroleum production. The rise of shale oil will allow the United States to outperform Saudi Arabia in petroleum production by 2020 and turn from net importer to net exporter of crude oil by 2030².

It's important to remember, however, that the EIA, which has now raised its projections for natural gas by 10% compared to its earlier forecasts in 2011, has a long history of unfounded optimism and overestimating reserves, which it then afterward has had to correct. The report itself, which ventures to estimate the most recent data for shale oil and gas in 41 countries, admits the uncertainty of these predictions, which describe reserves that could be technically recoverable but not economically worthwhile. Other reports by economic analysts have reported that American reserves are overestimated by 400-500%³. According to the EIA report, the North American region (USA, Canada, and Mexico) has by far the biggest shale gas reserves (1685 tcf⁴), followed by China (1.115), Argentina (802), Algeria (707), Australia (437) and Russia (287). Europe, on the other hand, has noticeably smaller reserves (470 tcf), most notably in Poland (148), France (137) and Romania (51). Landing far behind other countries like the United Kingdom (26 tcf), Sweden (10 tcf), the Netherlands (26), Germany (17), Denmark (32) and Bulgaria

¹ <http://www.eia.gov/analysis/studies/worldshalegas/>

² World Energy Outlook 2012, International Energy Agency
<http://www.iea.org/publications/freepublications/publication/English.pdf>

³ <http://shalebubble.org/wp-content/uploads/2013/02/SWS-report-FINAL.pdf>

⁴ Tcf= trillions of cubic feet

(17). Spain, according to the report, would have approximately 8 tcf - eight times less than the phantom quantities estimated by Spanish companies in the sector, that had talked of how Spain could be the North Dakota of natural gas⁵-

But in practice, fracking has not been as glorious as Mr. Soria would have us believe. The boom in the USA has transformed its energy situation, but it has also started to produce real, tangible proof of the real impact of hydraulic fracturing, the technique used to extract these unconventional fuels (pollution, damage to human health, earthquakes....) Strong social opposition and environmental scandals have raised the alarm in other parts of the world, where the promise of this Energy Eldorado is expected soon expected to arrive. American resistance to the practice has reached the world of culture, made visible by "Artists Against Fracking," headed by well-known figures such as Yoko Ono. "Gasland," an Oscar-nominated film by American director Josh Fox (whose recent sequel, Gasland II, premiered in 2013) has been noticeably effective in making the controversy known internationally. In the US, many communities have passed resolutions against hydraulic fracturing and the State of Vermont has ruled to ban it in May 2012, while the State of New York has a moratorium in place until 2015.

Canada, the other country that extracts shale gas commercially in large quantities, has also seen the province of Quebec consider reinforcing their current prohibition of the technique with a 5-year moratorium, and the government of Nova Scotia support a de facto moratorium until mid-2014⁶. Meanwhile, free trade agreement negotiations between these two North American countries and the European Union attempt to prevent such a situation in the future and circumvent the introduction of possible bans Europe, giving energy companies legal rights to oppose such measures.⁷ As a matter of fact, the Quebec ban is currently being challenged by the American company Lone Pine through the NAFTA agreement⁸.

Some Common Traits of the Resistance

⁵ <http://aciep.com/noticia/espana-podria-albergar-recursos-de-gas-equivalentes-70-anos-de-consumo>

⁶ <http://metronews.ca/news/halifax/106301/fracking-on-hold-for-two-years-in-nova-scotia/>

⁷ <http://corporateeurope.org/pressreleases/2013/eu-canada-trade-agreement-threatens-fracking-bans>

⁸ <http://www.canadians.org/action/petition/index.php>

The response movement has characterized in general by a unanimous opposition to the technology and the understanding that prohibition is the only possible answer, and not regulation, no matter how adequate. Criticism of the lack of transparency in public debate have also been a recurring element. Those in industry are well aware of this, and know that although the practice took off rapidly in the US, helped along by economic and environmental subsidies such as the “Halliburton exception,” which exempted the natural gas industry from potable water laws, its development elsewhere, such as in Europe where it is trying to establish massive production, depends on garnering public acceptance and requires much more stringent regulation. An industry-commissioned report⁹ aimed to figure out how the anti-fracking movement is organized and operates described it as “a highly effective campaign” and blamed it for a large portion of the *moratoria* and bans established in different parts of the world. The report notes that industry has underestimated the social and political risks and that this battle must be won before trying for wider implementation. Similarly, a recent NATO report identifies organized resistance as one of the key factors that will complicate mass utilization of shale gas in Europe.¹⁰

The sheer effectiveness of the opposition movement is evidenced by the fact that in various parts of the world, such as the United States¹¹ or Poland¹² anti-fracking groups are being criminalized, and made the objects of surveillance and espionage. In Poland, as well as in other countries of the former Soviet bloc such as Bulgaria, Romania, Lithuania, or Hungary, the nationalist argument for a future without dependence on Russian gas is being used heavily in public debate to garner social approval. Although curiously enough this modesty disappears when promising business that the prices of gas will not go down thanks to long-term contracts with Gazprom¹³.

The Improbable European Response

Apart from the visibly smaller reserves and anticipated public opposition, there are various factors that make similar development in Europe improbable. Geological, geographic, and

⁹ <http://www.controlrisks.com/OurThinking/Pages/The-Global-Anti-Fracking-Movement.aspx#>

¹⁰ <http://www.naturalgaseurope.com/shale-boom-might-not-come-to-europe-says-report-for-nato>

¹¹ http://www.earthisland.org/journal/index.php/eij/article/we_are_being_watched/

¹² <http://www.foodandwaterwatch.org/pressreleases/spying-activities-on-anti-fracking-groups-in-poland-impede-open-debate-about-the-risks-of-shale-gas/>

¹³ <http://www.naturalgaseurope.com/poland-shale-gas-production-and-consumer-pricing>

hydrological differences, together with a lack of adequate infrastructure and knowledge¹⁴, pose barriers that make the prospects of repeating the experience in the Old World unrealistic. Add to that an important speculative factor, the oft-repeated idea that a financial bubble created by artificially inflated gas prices in combination with production declining at a dizzying speed, could lead to the premature death of this energy "dream." All these factors together have contributed to early withdrawal by several companies in Europe and other parts of the world.

Promises made by some European governments have simply not been enough. The Polish permit allocation system has just gotten a beating at the hands of the EU Court of Justice, which sows doubt regarding its legality¹⁵. Poland, which is the European leader with over 40 exploratory wells and hopes to begin commercial utilization around 2015, has recently enacted a legislative modification which exempts boreholes drilled to a depth of less than 5000 metres from undergoing the corresponding Environmental Impact Assessment¹⁶. The intention is to quiet the vocal dissatisfaction of businesses who are asking more tax and regulatory slack. In spite of all this, Exxon Mobil left the country 2012, as have Talisman y Marathon Oil in 2013. I The Polish government is trying hard to squelch rumors of an exodus of foreign oil business leaving the country, in an attempt to plug up the drip and prevent companies like Conoco Phillips, Eni, and Chevron from following suit¹⁷. This last corporation has had a group of Polish farmers opposed to its activities occupy the land at one of its concessions¹⁸.

On the other hand, the British government, which has had to impose a temporary moratorium in 2011 (now lifted) after the seismic events caused by the boreholes owned by Cuadrilla Resources corporation in Lancashire (the only ones so far), has promised the companies in July of 2013 "the most generous tax regime in the world" with large reductions for investing in the UK. As a parallel measure in May it promised reductions in electricity charges to residents of municipalities that do not oppose fracking¹⁹, even though

¹⁴ http://www.foeeurope.org/sites/default/files/foee_slow_and_costly_road_may2013.pdf

¹⁵ <http://www.euractiv.com/energy/eu-court-casts-doubt-legality-po-news-529286>

¹⁶ <http://www.endseurope.com/32456/changes-to-polish-eia-legislation-approved?referrer=search>

¹⁷ <http://www.euractiv.com/energy/polish-minister-denies-shale-gas-news-529287>

¹⁸ <http://occupychevron.tumblr.com/about>

¹⁹ <http://edition.cnn.com/2013/04/29/business/uk-fracking-shale-gas-oil>

the following month a spokesperson for Cuadrilla was caught red-handed contradicting the government "off-the-record" regarding the possible reduction of electricity bills.²⁰ Governments wishing to promote acceptance of the practice are left in the paradoxical position of promising businesses that prices will not go down, and citizens that they will have cheap energy.

Withdrawals, Opposition and *Moratoria*

On occasion withdrawal by corporations, as in the case of OMV in Austria, is related to strict environmental requirements imposed by the government.²¹ Shell left Sweden in 2011 after finding lower reserves than expected and now Swedish Parliament is trying to pass some sort of moratorium, although currently the first attempt has not met with success. It is possible that Dart Energy will leave Scotland due to the low quality of the gas found there.²² Dart Energy, which is in tragic financial shape, has already announced it will quit its concessions in Australia, owing to new aquifer impact requirements imposed by the Australian government. Additionally, in Australia the regional government of New South Wales has recently ruled to create a 2 km exclusion zone around residential and agricultural areas, which will cause another two companies to abandon their operations (Metgasco and Planetgas). Social mobilization in Australia is very strong and has played a fundamental role in the creation of these new requirements. The "Lock the gate" movement is worth an individual mention; communities have declared each road, street, neighborhood, etc. "free of gas fields" and have even blocked truck traffic, claiming that even though they may have a legal license, they have "no social license" to operate.

Opposition is also gathering strength with remarkable speed in New Zealand, where one of the biggest dairy cooperatives in the country, Fonterra, has announced that it will not buy milk from farmers who accept drilling mud as a fertilizer for their land²³. Similarly, Dutch and German beer breweries (including Heineken)²⁴, following the example of some

²⁰ <http://www.independent.co.uk/environment/green-living/cuadrilla-pr-man-admits-george-osbornes-shale-gas-revolution-wont-cut-energy-bills-8656246.html>

²¹ <http://www.reuters.com/article/2012/09/17/omv-shale-austria-idUSL5E8KHHDG20120917>

²² <http://www.heraldscotland.com/news/home-news/burning-issue-poor-gas-quality-could-end-scots-drilling-plan.20723754>

²³ <http://www.radionz.co.nz/news/rural/138025/fonterra-to-stop-taking-milk-from-farms-with-oil-and-gas-waste>

²⁴ <http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/10076467/Fracking-could-ruin-German-beer-industry-brewers-tell-Angela-Merkel.html>

of their American counterparts, have expressed their concern about the possible consequences to their operations due to possible aquifer contamination and have requested a ban on the technique. The Netherlands, which has conceded several exploratory licenses, has frozen operations pending completion of a report on environmental hazards, which will eventually be debated in Parliament probably in September of 2013. Although secrecy and lack of transparency have dominated the process, the government has recently minimized the role of shale gas, stating that shale gas production would only represent a couple of percentage points relative to current natural gas production²⁵. Dutch Rabobank has announced several months ago that it will not loan money for hydraulic fracturing operations²⁶.

The Republic of Ireland is in a similar situation of "unofficial moratorium". The two gas companies with permits in Ireland, Tamboran y Enegi, will have to wait until early 2015 to find out whether they will be able to drill, as results from environmental risk studies carried out by Ireland's Environmental Protection Agency will not be ready until then.

Not daring to make public statements in pre-election season, at least not openly, Germany has given in to social and state pressure and has had to postpone passing a law intended to regulate fracking until after the September 2013 elections; this law would include a mandatory Environmental Impact Assessment and bans in zones that affect aquifers, as well as other environmental requirements.²⁷ In addition, the German Advisory Council on the Environment (Sachverständigenrat für Umweltfragen, SRU) threw cold water on the corporations' hopes in May when it published some statements what made clear that shale does not play a key role in the national plan for the "Energiewende" (the energy transition), nor will it guarantee energy security or lower prices.²⁸ Opposition to fracking in Germany, although lacking strong federal coordination, launched a joint resolution in May of 2013 (the Korbach resolution²⁹) demanding an immediate ban. At the moment there is a

²⁵<http://www.naturalgaseurope.com/netherlands-coalition-partner-opposes-shale-gas>

²⁶ http://www.dutchnews.nl/news/archives/2013/07/rabobank_will_not_finance_shal.php

²⁷ http://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Wasser_Abfall_Boden/gutachten_fracking_2012_en.pdf

²⁸ http://www.umweltrat.de/SharedDocs/Pressemitteilungen/EN/CurrentPressReleases/2012_2016/2013_05_PressRelease_Fracking.html

²⁹ <http://www.resolution-korbach.org/unterst-aus-es.php>

moratorium in North Rhine-Westphalia, in Northern Hesse the first permit has been denied, and in Thuringia BNK Petroleum has had its license revoked.

In the Czech Republic, the three licenses applied for by BasGas Energia and Cuadrilla Moravia are frozen because the legislature is processing a bill to establish a two-year moratorium, although the proposal has been in administrative limbo for almost a year and there have been political motions to torpedo it. The citizen movement Stop HF is playing an important role in generating social pressure.

It seems evident that electoral ups and downs have a decisive role. In Denmark, two licenses were granted to Total in 2010, but the incoming government after the 2011 elections established a temporary prohibition for new licenses. In Romania, promises to ban hydraulic fracturing contributed to the election of the current government in the May 2012 elections. A sort of *de facto moratorium* was declared until the end of the year, although the government did not in the end honor it, granting 5 licenses in early December to Chevron and Shell. In addition, Parliamentary elections near the end of 2012 created a pro-fracking majority in the legislative chamber. The people have held massive protests and even 3 *referenda* in Dobrogea, one of the affected areas, that have made the massive opposition to the operations quite clear. Fracking-free municipalities are also multiplying in the province of Vaslui, another affected area.

In the opposition to hydraulic fracturing, one typically finds a central government trying to level the field for industry, while smaller administrative entities like regional, provincial and municipal governments take the side of the citizenry, which is always against: there has never been a single citizen movement in support of these projects. There are two countries however that have become an example for others in ordering a ban at the national level.

Bulgaria, after well-attended protests in early 2012, ruled to prohibit the hydraulic fracturing technique for exploration for shale oil and gas, which was later reaffirmed by its parliament. In France, the other country that has unequivocally banned the use of the technique (June 2011), either for exploration or extraction -astutely basing its position on the precautionary principle- strong pressures from industry are clearly felt behind the scenes, since rumors about a revision of the decision are frequent. France has been the cradle of European resistance, - very effective, horizontal and organized -³⁰, a model for

³⁰<http://stopgazdeschiste.org>

many opposition groups in other countries. In June of 2013 the French parliament approved a clearly pro-fracturing report, and the Minister of the Environment credited her sudden departure from the administration last month to pressures from the petroleum industry displeased by her firm anti-fracking position.³¹ Nevertheless, President Hollande himself has stated several days afterward that there will be no hydrofracturing while he is Prime Minister.³²

As for Brussels, the stage is set for debate. The public opinion survey organized by the European Commission in 2013 has clearly shown that the procedure does not enjoy public approval. Meanwhile energy politics is the concern that is incumbent on each Member State, and although barring the practice at the European level is unthinkable, the European Commission can ignore neither the general feeling of the populace nor the results of the research it has itself commissioned,³³ which reveal the need for a clearer regulatory framework, and that may pass, among other things, through a mandatory EIA while still in the early exploratory stages and irrespective of the quantity to be extracted, similar to what was approved by European Parliament's Environment Committee in July of 2013³⁴. Although there probably will not be a proposal from the European Commission until at least the end of 2013, nor a definitive decision until after European Parliamentary elections in 2014, there is an underground pulse between Commissioner for Energy Öettinger³⁵ on one side, who intends to give hydrofracturing free rein, and on the other the Commissioners for the Environment (Potocnik)³⁶ and Climate (Hedegaard)³⁷, who intend to lower expectations for shale gas.

Other Regions

Since the first well was drilled in 2011 in the province of Neuquén by Apache, an American company, on Mapuche lands, there have been more than 100 wells drilled in Argentina,

³¹ <http://gazdeschistesprovence.wordpress.com/2013/07/05/batho-torpille-le-gouvernement/>

³² <http://blueandgreentomorrow.com/2013/07/16/no-fracking-in-france-while-im-in-charge-says-hollande/>

³³ http://ec.europa.eu/environment/integration/energy/studies_en.htm

³⁴ <http://www.endseurope.com/32599/>

³⁵ <http://www.naturalgaseurope.com/shale-gas-gazprom-prices-guenther-oettinger>

³⁶ <http://www.endseurope.com/31737/shale-gas-is-no-bonanza-for-eu-warns-poto%C4%8Dnik>

³⁷ <http://www.euractiv.com/sustainability/cooperation-shale-answer-europe-news-519803>

which has made shale gas a banner for advancing toward energy sufficiency, one of the reasons for the nationalization of YPF-Repsol and the passing of the Law on Hydrocarbon Sovereignty. The extraction frontier is being extended to provinces that haven't traditionally been oil-producing, now searching in their shales, and some, like "Entre Ríos," are trying to anticipate the issue, debating in its legislature a fracking ban aimed to protect the guaraní aquifer, one of the biggest clean water reserves in the world.

In May of 2013, on the occasion of the Algerian Minister of Energy and Mining's visit to London, a group of Algerian citizens held a demonstration against the lack of public debate regarding fracking in their home country and against the Algerian government's plans³⁸. Algeria has some of the best reserves in Africa and is already offering a tax regime highly favorable for extraction which has attracted corporations such as Shell, Eni, and Talisman.

China, with one of the largest reserves worldwide, claims that shale gas would cover 6% of its energy demand by 2020. Chevron, Shell, BP, Exxon Mobil and Total are well positioned there³⁹ and whether the growing social protest against environmental degradation will include fracking is yet to be seen, at least in densely-populated regions with water scarcity issues like the Sichuan Basin.

July 24th 2013

Samuel Martín-Sosa Rodríguez

International Coordinator

Ecologistas en Acción

³⁸ <http://cnlc-dz.org/blog/2013/04/19/des-algeriens-protestent-a-londres-contre-lexploitation-du-gaz-de-schiste-en-algerie/>

³⁹ <http://www.tni.org/briefing/fracking-and-global-land-grab#17>