

Fracking in Spain: under way*

The debate over the exploitation of shale gas reservoirs in Spain: confronted interests

An intense debate over fracking activities has arisen in Spain: reservoirs are foreseen to cover domestic demand of natural gas for the next 70 years¹, but social and environmental concerns must be balanced with economic interests.

The hydraulic fracturing (or *fracking*, as it is also called in Spain) is on the spotlight since important reservoirs of shale gas (and eventually shale oil) allegedly lay mainly beneath the territory of the Northern regions (Basque Country, Cantabria, Asturias and Castilla y León). Even though no perforation or exploitation have taken place yet, investigations are currently being carried out by energy companies interested in this new energy source, which is expected to substantially reduce the Spanish dependence on gas imports².

In this subject, a wide variety of interests confront: In one end of the spectrum, there are serious environmental concerns, as fracking is considered by some as highly contaminant for soils, water and air and even potential cause of earthquakes. Ecologist groups are leading the fight against the authorization of fracking activities and strive for either regional or central governments approving banning regulations on the subject.

In the other end, the energy companies see fracking as a potentially lucrative way of obtaining natural gas (a more environmentally friendly fuel, cheaper than other energy resources) which may offer them big profit either by selling it to the Spanish gas system or by exporting it overseas³.

The central Government

In a more balanced position, the central government appears to encourage the exploration of shale gas reservoirs, and maintains a favorable position to the activity on economic and energy dependency grounds⁴. Yet it is also concerned for the environmental risks the fracking activities may involve.

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¹ <http://www.expansion.com/agencia/efe/2013/03/14/18164708.html> (14/03/2013).

² Currently, Spain depends at 99% on imports of oil and gas to supply the energy demand, despite the big investments made in the past on renewable energies (mainly through wind farms and photovoltaic plants): <http://www.expansion.com/2013/03/25/empresas/energia/1364229012.html> (27/03/2013).

³ In this respect, it is worth to mention that a platform gathering specialists from the industry, along with independent experts and professors has been created, in order to improve knowledge and communication on exploration and exploitation of shale gas. It is named Shale Gas España and the most relevant partners are BNK España, HEYCO Energy Group, R2 Energy, San Leon Energy and Hidrocarburos de España.

⁴ The total amount of gas, oil and coal imports are equivalent to around €45,000 and 56,000 million (Figures available at Expansión: <http://www.expansion.com/agencia/efe/2013/03/14/18164708.html> (14/03/2013) and Shale Gas España http://www.shalegasespana.es/es/docs/factsheets/el_impacto_economico_del_shale_gas.pdf).

The parliamentary group supporting the Government, which has an absolute majority in both Congress and Senate, has recently rejected a non-legislative proposition presented by the opposition, intended to approve a moratorium whereby all the activities related to fracking would be suspended, stopping every licensing process, while an *ad hoc* experts committee studied all the environmental risks the activity may involve and issued a report to Parliament so that a state level regulation could be passed.

Another legislative proposition has been newly presented, this time by a far-left wing group of parties, in order to get an absolute prohibition of any activity in relation with fracking. Moreover, this legislative proposition adds a transitional provision whereby every license, either in procedure to be granted or already authorized, should be suspended. The proposition was presented in December 2012, and is still pending of debate at the Congress.

Yet it is not expected to be approved, since, as abovementioned, the Government and its supporting majority opposes to fracking prohibition. In this regard, the parliamentary group supporting the Government has introduced an amendment in a draft law (aimed to regulate the guarantee of the electric supply in the island territories⁵, and still pending of parliamentary approval) in order to explicitly include fracking techniques among those which can be used under the exploration, investigation and exploitation licenses. The draft law also introduces perforation (needed for fracking exploration, investigation or exploitation) as one of the activities which authorization requires a previous and compulsory environmental impact assessment.

These initiatives clearly show the Government's position in favor of fracking activities, even though trying to minimize the environmental negative effects, due to the concerns it arises.

The Regions

However, Spain is a decentralized country, where legislative and regulatory powers are divided (and very often shared) between the State and the Regions. Thus the State can legislate over hydrocarbons and mining, while Regions can legislate over a number of related subjects, such as environmental impact or urban and territorial planning, but also about the mining permitting in their territories, including authorizing the hydrocarbons investigation, according to the common framework set out by the State laws⁶.

Therefore, different standings coexist among Regions. In fact, some of them, like Cantabria, Catalonia or Andalusia have ruled in order to ban or to delay fracking activities.

⁵ Proyecto de Ley para la garantía del suministro e incremento de la competencia en los sistemas eléctricos insulares y extrapeninsulares

(http://www.congreso.es/portal/page/portal/Congreso/Congreso/Iniciativas?_piref73_2148295_73_1335437_1335437.next_page=/wc/servidorCGI&CMD=VERLST&BASE=IW10&PIECE=IWAO&FMT=INITXD1S.fmt&FORM1=INITXLBA.fmt&NUM1=&DES1=&DOCS=8-8&QUERY=121.cini.+no+%40fcie+no+concluido.fase.)

⁶ Under the Spanish Constitution, legislative and regulatory powers are distributed between the State and the Regions. Therefore, the regional governments are competent for licensing investigation of hydrocarbons whenever the permit is focused within the boundaries of their territory. But if the permit must be granted over an area included in the territory of more than one Region (or different areas, but covered by the same permit), or it allows offshore investigation, the State will be competent for licensing.

Parliament of Cantabria has recently passed a law through which it prohibits every use of fracking techniques, either for investigation or extraction of shale gas⁷. The prohibition affects not only to newly lodged applications, but also to permits already licensed, and civil servants are required to paralyze every fracking activity and revert to the previous situation. The same principles inspire La Rioja Law 7/2013⁸.

It must be noted that these prohibitions might be contrary to the abovementioned common regulatory framework as the rules it sets out are applicable on the whole Spanish territory. Since the State laws allow the investigation and exploitation of hydrocarbons (among which, the shale gas) subjected only to the requirements of being licensed, unilaterally banning by a Region may be breaching constitutional rules which distribute powers between the State and the Regions. Besides, companies obliged to abandon exploitations and restore the surrounding land may appeal for damages caused by the Cantabria's and La Rioja laws⁹.

Catalonia, another Region, has suspended the authorization already granted to a company for investigating shale gas reservoirs in its territory, arguing delay on the presentation of certain work plans (fact that, in less controversial circumstances, might have just led to minor –if any– discipline measures). Moreover, the Catalanian government is in the process to deny two permits for investigation applied by another company to investigate a total surface of more than 165 hectares in search for shale gas deposits.

In the South of Spain, Andalusia's regional government seems still hesitant on the posture to adopt. Members of the regional government have also declared the government's intention of approving a moratorium until further environmental studies are carried out, but no regulatory initiatives have been taken so far. Meanwhile, Andalusian government has licensed a company for investigating shale gas existence on the region.

Some other Regions stand neutral or even favorable to fracking. One of those has been the Basque Country, which government has even promoted the incorporation of a public company on the purpose of investigating and eventually exploiting the shale gas reservoirs which might be discovered in its territory¹⁰.

Other actors

Finally, municipalities are moving within the whole spectrum. Some have declared their territory as “fracking free”, thus showing their political intentions against fracking activities being authorized within their jurisdictions. Yet some others are favorable to investigations

⁷ Ley de Cantabria 1/2013, de 15 de abril, por la que se regula la prohibición en el territorio de la Comunidad Autónoma de Cantabria de la técnica de fractura hidráulica como técnica de investigación y extracción de gas no convencional (<http://www.boe.es/boe/dias/2013/05/09/pdfs/BOE-A-2013-4828.pdf>).

⁸ Ley de La Rioja 7/2013, de 21 de junio, por la que se regula la prohibición en territorio de la Comunidad Autónoma de La Rioja de la técnica de la fractura hidráulica como técnica de investigación y extracción de gas no convencional. (<http://www.boe.es/boe/dias/2013/07/09/pdfs/BOE-A-2013-7480.pdf>)

⁹ A damages judiciary appeal could be lodged on the grounds of the Region's liability for its legislative activity.

¹⁰ Sociedad de Hidrocarburos de Euskadi, S.A. is a company specialized in exploring, exploiting and storing hydrocarbons in the Basque Country and Cantabria. It is 100% owned by Ente Vasco de la Energía, public entity created and managed by the Basque Country government.

on search of shale gas, as a way of economic improvement for their territories. Municipalities are recognized a certain degree of autonomy under Spanish Constitution, even though their competences do not cover regulation on hydrocarbon mining. However, municipal works licenses must be obtained previously to start the operations and, in this regard, local authorities' rejection to fracking might cause certain delays and legal disputes.

Regarding the European Union, the European Commission, after an exhaustive study of the whole problem in the Member States¹¹, has concluded that the current regulatory framework covers sufficiently the early exploration of shale gas reservoirs, and also the exploration and exploitation activities, since they are subjected to a variety of Directives and regulations covering hydrocarbons, chemical substances and environmental protection matters. Yet the Commission states that in the future, a more integrated regulation would be desirable, by concentrating the whole authorizing process in the hand of a limited number of specialized authorities, and improving regulation along with the evolution of the practice in the European territory¹².

In parallel to the regulatory and political struggle, certain technical reports have been released, showing the pros and cons of the fracking activity, such as the one carried out by the College of Mines Engineers, which points out the possibilities that still exist in Spain for exploring and exploiting shale gas, adding that risk can be reduced by applying best practices, based on the previous experience, mainly that accrued in the USA, the country where fracking has been further developed¹³.

Besides, the Mines Engineers' report also deems that, neither in the short term nor, probably, in the middle term, there will be need to modify regulation in order to acceptably comply with those best practices. However, it concludes, a specific regulation on fracking must be approved in a longer term to collect the experience accrued and to solve the problems encountered.

Basic regulation of fracking permits.

Down below the debate line and the political noise, at least seventy licenses for investigation of the existence of shale gas reserves have already been granted, most of

¹¹ *Final Report on Unconventional Gas in Europe, In the framework of the multiple framework service contract for legal assistance*, Philippe & Partners, November 2011 (prepared for the Directorate-General for Energy in the European Commission).

http://ec.europa.eu/energy/studies/doc/2012_unconventional_gas_in_europe.pdf

¹² In this regard, it is worth to mention the European Parliament resolution of 21 November 2012 on the environmental impacts of shale gas and shale oil extraction activities, in which the social, environmental and regulatory matters are widely described

(<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2012-0443+0+DOC+XML+V0//EN>)

¹³ *Gas no convencional en España, una oportunidad de futuro*, Consejo Superior de Colegios de Ingenieros de Minas.

http://passthrough.fw-notify.net/download/439621/http://ingenierosdeminas.org/documentos/130312_informe_gas.pdf

them by the central government, some others by the Regions, and a similar amount of applications are pending.

In order to perform fracking activities in Spain, a variety of permits must be obtained. It must be noted that in Spain the property of the deep subsoil is owned by the State, so no private property rights are allowed over it. In contrast, either the central or the regional Governments can grant investigation and exploitation licenses that allow the grantee to search for reservoirs and to extract the hydrocarbons eventually discovered.

Hydrocarbons related permits

Irrespective of the granting authority, the most important of those licenses are (i) the investigation permit and (ii) the exploitation concession¹⁴:

- (i) The investigation permit is the license needed to perform the activities aimed to discover the reservoirs of hydrocarbons and to assess the quality and profitability of its exploitation. It allows to the applicant an exclusive right to investigate the existence of reservoirs in an area of between 10,000 and 100,000 hectares during a term of six years, according to a program of works previously prepared by the applicant and approved by the granting Administration¹⁵.

Nonetheless, if different companies apply for investigation permits covering, totally or partially, the same area, the Ministry of Industry shall decide to which of them the permit must be granted, according to certain criteria set out in the law¹⁶.

- (ii) The exploitation concession is the license by which the applicant is allowed to perform the activities aimed to extract the hydrocarbons from the reservoirs previously discovered in the area covered by an investigation permit. It is granted over a period of 30 years, which can be extended for up to two additional periods of 10 years each. Exploitations concessions are always licensed by the central Government. Regional Governments must only issue a previous report on this respect, which is usually taken into account, even though it is a non-binding one.

The hydrocarbons extracted under the exploitation concession can be freely sold in the market by the licensed company.

Both the investigation permit and the exploitation concession oblige the companies to make a minimum investment¹⁷. Additionally, they must pay a regulated annual amount (the so-called "*canon*") to the Administration, as a fee for the use of the public domain (deep

¹⁴ Both regulated in the Law 54/2007, of the Hydrocarbons Sector. This law establishes an additional permit: the hydrocarbons exploration permit, needed for shallow exploration (less than 300 meters deep). Since shale gas is usually allocated on the deep subsoil, this permit shall not be deemed as required.

¹⁵ The term could be extended if needed by applying to the competent authority, which can only deny the extension if it deems that the essential obligations required in the license have been accomplished. However, the area covered by the extended license shall be reduced in a 25% of the surface granted on the original permit.

¹⁶ A number of criteria are to be evaluated, such as the major committed investment, the investment program scheduling or the premium offered over the regulated fee (*canon*).

¹⁷ The investment required shall be determined in the license, based on the scale set out in the applicable regulations and according to the works plan presented by the applicant.

subsoil), based on the surface of the area covered by the license¹⁸. Finally, a guarantee must be deposited before the granting authority in order to cover the eventual damages which may be caused when performing the licensed activities.

Other permits

Besides the authorizations regarding the hydrocarbons regulations, some other legislation must be taken into account when applying for investigation or exploitation licenses. For example, since fracking requires very large amount of water, water concessions shall also be obtained from the watershed authority (*organismo de cuenca*).

Other relevant regulations are referred to the environmental impact assessment, which is a deep analysis on the effects of the fracking activities over the environment, including contamination of soils, emissions of carbon dioxide and other contaminant gases to the atmosphere, possible effects on the geological stability of the ground, water spills, contamination of the phreatic surface, and effects on the flora and fauna, among others. This assessment is made by the granting authority on the basis of an environmental study presented by the applicant¹⁹. The study covers all the aspects of the activity to be performed which may cause risk to the environment. If the assessment was not favorable, the license could not be granted²⁰.

Since fracking is not yet specifically regulated (at least until the draft law mentioned above is passed on the Parliament), there are no provisions on what it has been a concern, for instance, in the USA, like the disclosure of the nature and composition of the chemical substances used in hydraulic fracturing. Yet the authority in charge of issuing the impact assessment may require information about these substances, mostly if they may affect to subterranean waters, or if there is risk of contamination of soils or surface waters due to wastewater spillage or waste deposits²¹. The effects on the urban planning, the population and the territory are also assessed during the authorization process²².

In order to facilitate the authorized works, and to avoid delays or interruptions due to the opposition of landowners affected by the investigation or exploitation licenses, both the land and facilities covered by those permits are subjected to regulatory takings (*expropiación forzosa*), which must be lodged before the Ministry of Industry, and is granted once the company has obtained the investigation or exploitation license.

¹⁸ Measured as minutes of arc of the Earth circumference (approximately equivalent to a nautical mile).

¹⁹ The environmental impact assessment is carried out by the applicant, which includes it among the documents presented with the application.

²⁰ If the assessment is not favorable, the applicant shall be required to correct the material aspects of the activity deemed harmful for the environment, and to amend the environmental study and present it again for a new assessment. However, the authority's assessment could still be negative (if it deems the activity continues to be environmentally hazardous) and the license could again be denied. In this regard, the position of certain Regions, contrary to fracking activities, could represent a problem when applying for the permits.

²¹ See number 41 of the European Parliament resolution of 21 November 2012 on the environmental impacts of shale gas and shale oil extraction activities.

²² Municipalities play an important role in this respect.

Conclusions

- Debate on fracking is strong in Spain, with all the opinions represented within both the society and the public powers. While solid independent scientific papers support the activity and encourage to adopt best practices in order to take advantage of a technique which can reduce Spain's exterior dependence on hydrocarbons and preserve the environmental heritage at once, private companies (and certain regional authorities) are on the race to find the location of the best shale gas reservoirs for a future exploitation.
- Current regulatory framework covers sufficiently fracking activities, both in the EU and in Spain, where central Government is favorable to examine the regulatory needs and promote legislation accordingly in the middle term.
- A number of permits are required in order to perform fracking activity, which may involve certain cost in time and money. The most important of those are granted either by the central or by the regional governments, depending on the affected territory, on the basis of the constitutional distribution of powers. Among the factors taken into account during the licensing process, environmental risks fracking involves are a major issue.

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