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Spatial development plan of North-Rhine Westphalia
Comprehensive fracking ban (including shale oil, tight gas/oil)
Submission to the planning development goal 10.3-4

Dear Sir or Madam,

Together with groups from across Europe, we are actively campaigning against the development of hydrocarbons (such as shale gas/oil, tight gas/oil and coal bed methane) which are usually extracted by using a technique called hydraulic fracturing, better known as fracking. Everywhere in Europe, anti-fracking groups are facing the same issues and have to confront the same - often unscientific and economically unreliable - weak arguments. That's the reason why people are united in our opposition to fracking, starting anywhere in the European Union, sharing the slogan of the initial mobilisation of French citizen groups against fracking: *Ni ici, ni ailleurs*.

We therefore explicitly welcome the proposed fracking ban (for shale gas and coal bed methane) via the spatial development plan in North-Rhine Westphalia (planning development goal 10.3-4). However, in the definition of the goal 10.3-4 the spatial development plan states that the fracking ban does not apply to fracking operations for the exploration and/or extraction of so-called conventional gas and it refers to sandstone layers as conventional deposits. There is also no clarification whether the ban will apply if an operator wishes to extract oil (instead of gas) by using the fracking technique.

Gas and oil is neither 'conventional' nor 'unconventional'. All oil and gas can be classified as hydrocarbons. 'Unconventional' does not refer to the characteristics or composition of the oil/gas itself. Instead it refers to the porosity, permeability, fluid trapping mechanism, or other characteristics of the reservoir or bearing rock formation from which the oil/gas is extracted. These characteristics result in the need to alter the geological features of the reservoir or the rock formation by using artificial stimulation techniques such as hydraulic fracturing to extract the oil/gas. Exploring for unconventional fossil fuels (such as shale gas/oil, tight gas/oil and coal bed methane) ultimately requires the use of some form of fracking.

Tight gas for example is defined by the oil and gas industry as an unconventional form of gas¹ which requires more effort than conventional forms of gas "to pull it from the ground because of the extremely tight formation in which it is located. [...] Without secondary production methods, gas from a tight formation would flow at very slow rates, making production uneconomical."²

Shale gas and tight gas operations - while targeting different kinds of impermeable rock formations - are not materially different. According to the German Chemists Society both shale gas and tight gas operations combine the multistage injection of large volumes of water and chemicals at high pressure with horizontal drilling which may exceed 2 km in length. Their report found that: "Types and volumes of fracturing fluids and chemical additives [simply vary because of] local geology".³ They also clearly express their surprise that the current draft on the proposed German fracking legal framework makes exemptions for tight gas exploitation and they recommend the following: "We believe that risks to shallow water resources more likely depend on the type of drilling, hydraulic fracturing and well integrity than on the type of the reservoir and suggest this should be reflected in the draft."⁴

Finally, we refer explicitly to the very clear definitions as given by the European Parliamentary Research Service.⁵

- "**Shale gas:** natural gas which is trapped in shale, a fine-grained sedimentary rock consisting mostly of clay particles. **It is extracted by horizontal drilling and hydraulic fracturing.**
- **Tight gas:** natural gas which occurs in low-porosity, impermeable sandstone or limestone formations. **The production process is similar to that of shale gas.**
- **Tight oil:** light crude oil trapped in shale, limestone and sandstone formations. Like shale gas and tight gas, **it is extracted by horizontal drilling and hydraulic fracturing.**"

¹ <http://www.total.com/en/energies-expertise/oil-gas/exploration-production/strategic-sectors/unconventional-gas/presentation/three-main-sources-unconventional-gas?%FFbw=kludge1%FF#>

² <http://www.shell.us/aboutshell/shell-businesses/onshore/shale-tight.html>

³ http://www.rigzone.com/training/insight.asp?insight_id=346&c_id=4

⁴ <http://pubs.acs.org/doi/full/10.1021/acs.est.5b01921>

⁵ <http://pubs.acs.org/doi/full/10.1021/acs.est.5b01921>

⁵ http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140815/LDM_BRI%282014%29140815_REV1_EN.pdf

Therefore, the definition of the fracking ban via the spatial development plan (goal 10.3-4) in North-Rhine Westphalia has to be improved. In our view, the fracking ban must also apply for the extraction of tight gas/oil and shale oil. We rely on your – science-based and – sensible decision, against fracking!

With best regards,
Geert Decock



Director of EU Affairs , Food & Water Europe

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