

CSR SECTOR POLICY - Shale oil and gas – April 2018

1. Scope of the Policy

The present policy (the Policy) applies to all financings and investments activities and more broadly involvements of the Bank relating to the sector of shale oil and gas. Are covered financings, advisory mandates and investments activities that are directly linked to a shale oil or gas project. Are also concerned financial assistance or advisory mandates to companies for which shale oil and/or gas constitutes the main business.

The Policy applies from the date it is published. Are excluded pre-existing activities in this sector, including commitments already made or business opportunities which are already at an advanced stage of negotiation.

The Policy will be updated from time to time.

2. Sector issues and objectives of the Policy

Natural gas is generally regarded as a transitional energy source and oil is expected to continue contributing a significant role to the global energy mix in the forthcoming years including in scenarios aiming to achieve internationally agreed objectives on climate change, air quality and universal access to modern energy¹. Once produced, shale gas and shale oil do not differ from natural gas or oil.

Shale oil and gas have been extracted for many years in the United States which are considered by the Policy to be the reference country for this activity². Extraction of shale oil and gas differ from conventional oil and natural gas reservoirs mainly in level of recourse to hydraulic fracturing that is more significant. Acquired experience confirms that the extraction of shale oil and gas results notably in environmental impacts or risks similar in nature or magnitude to impacts and risks inherent to the oil industry. Chemical additives injected when fracturing and pressure needed for fracturing³ may aggravate such risks and impacts. It is therefore key that this activity is conducted under best practice by experienced companies. Also, strict regulation is a necessary condition⁴.

On the other hand, satisfactory development of the extraction of shale oil and gas comes up against a lack of experience from potential operators and local administrations in other parts of the world. And due notably to chemical additives used for and waste water generated by hydraulic fracturing, potential mistakes may have severe environmental consequences such as: induced pollution of the water, the land or the air that may result, in case of a major accident, into social or biodiversity impacts. Therefore, potential impact on groundwater is a legitimate concern for local populations in particular in areas where experience is missing. The tight mesh size of wells may also be regarded as incompatible with highly populated lands or significant natural or cultural heritage sites.

Some surveys⁵ have questioned the estimation of fugitive emissions of methane, thus creating a controversy regarding the development of shale gas as a potential transitional energy source.

¹ Cf. the Sustainable Development Scenario (SDS) of the International Energy Agency.
<http://www.iea.org/weo/>

² US Production of unconventional gas is greater than the production of conventional natural gas.

³ Fracturing the rock may be described as creating a micro-seism

⁴ Report on shale gas and oil. June 2011. French National Assembly.

⁵ Cf. Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations. Cornell University.

However, some recent surveys⁶ indicate that gas is preferable from a climate perspective to other fossil fuels such as coal, provided fugitive emissions can be maintained below 3% of total gas production. Therefore, while the current rate is generally estimated to be below this level⁷, it appears important that methane emissions are reduced as much as possible. Consequently, some industry stakeholders have launched initiatives to tackle this issue, such as the ONE Future coalition in the United States, which has set the objective for its members to achieve a global emission rate below 1% by 2025.

The Policy comes as a supplement to the rules set by public energy policies and the investment policies of the Bank's clients' and is not intended to supplant them. It seeks to state the CSR⁸ analysis criteria and requirements of the Bank in the shale oil & gas sector according to the identified societal issues. It supplements the implementation of the Equator Principles for project finance transactions.

3. Reference frame

In appraising shale oil and gas financings and investments opportunities, the bank will be guided by the standards resulting from the following conventions, initiatives or sources of reference:

- National and European regulations, and international or regional conventions relating to greenhouse gas emissions
- National strategies and regulations that will be adopted by States regarding the extraction of shale gas
- The United Nations Framework Convention on Climate Change and the related protocols and agreements
- The IFC Performance Standards and Environment Health and Safety Guidelines underlying the Equator Principles
- The International Energy Agency
- The Natural Gas STAR Program
- The ONE Future coalition
- The API's "Environmental Partnership",

4. Analysis criteria

The issues relating to the shale oil & gas sector lead Crédit Agricole CIB to adopt a cautious stand and restrict its involvement to transactions that have at a minimum the following characteristics:

- The client or its contractor(s) should be experienced oil and gas operator(s), should have a good environmental track record, should preferably have experience in a same or similar area/geology, and should be experienced in hydraulic fracturing. Such experience may be organic or through reliance on an experienced sub-contractor.
- A regulation consistent with the reference frame should exist in the country where the operation is located, country referred to as the host country, (or, if missing, the client should commit to voluntarily meet the regulation of a reference country in terms of shale oil and gas)
- Emission reduction strategies should be consistent with the objective of national or international initiatives intended to limit methane emissions (such as the ONE Future coalition)⁹. In particular, it should include adherence to all existing rules and regulations, the use of green completions, the installation of equipment designed to minimize emissions (vapor-recovery units, replacing high-bleed pneumatic controllers, etc.), and a leak detection and maintenance program designed to minimize and reduce methane emissions.
- Confidence should be demonstrated that a sufficient distance exists between where hydraulic fracturing occurs and water tables in order to avoid any contamination of groundwater by migration of chemical additives and waste water
- The primary source of water used should be known to the client and, independently of the respect of local regulations and of their monitoring, the client should commit that waste water will be treated according to a plan acceptable for the Bank, and more broadly to adhere to best industry practices (as defined in reference countries for shale gas) to minimise environmental risks.

⁶ Cf. Greater focus needed on methane leakage from natural gas infrastructure. RA Alvarez, SW Pacala, JJ Winebrake, WL Chamides and SP Hamburg. Proceeding of the National Academy of Science

⁷ For information on methane emissions in the United States, cf. Inventory of Greenhouse Gas Emissions. US Environmental Protection Agency and Anthropogenic Methane Emissions in the United States. The National Academies of Sciences Engineering Medicine.2018.

⁸ Corporate Social Responsibility

⁹ Policy regarding flaring is covered by the CSR sector policy for oil and gas.

- This activity should be consistent with the location of the project including but not limited to conditions imposed under UNESCO World Heritage list and Ramsar convention.

From an operational standpoint, the following aspects will be taken into consideration when assessing a client or a transaction:

- regulation applying to greenhouse gas emissions in the host country including regulation to be enforced in a reasonable future (trading of emission certificates, carbon capture, offset,...)
- whether a regulation framework exists in the host country with respect to the shale oil and gas activity that is consistent with the reference frame including with respect to the rules in place in reference countries
- potential impacts from wells including risks of polluting the groundwater (quality of cementing of wells)
- potential impacts specific to hydraulic fracturing including in relation to the use of chemical additives
- whether an environmental impact assessment exists where underground aquifers are less than 300 meters from the hydrocarbon-producing zone or less than any greater distance deemed appropriate according to the geology
- whether the primary source of water is known to the client and the scope and quality of the monitoring by the appropriate regulatory authorities
- treatment of waste water
- nuisances to the public and landscape impacts
- potential impact on critical natural habitats (including on protected areas and on wetlands of international importance covered by the Ramsar Convention)
- potential impact on significant cultural site (in particular sites listed on the UNESCO World Heritage list)
- forced physical or economical displacement of population due to the loss of goods or access to lands
- environmental legacy from past operations
- efforts undertaken to limit methane emissions. Being a member of the “Natural Gas STAR Program”, “ONE Future”, the API’s “Environmental Partnership”, or other organizations that encourage best industry practices for reducing methane emissions and the setting of methane emission reduction targets will be regarded as a positive indication in this respect.

5. Exclusion criteria

The Bank will not participate to financing of projects if aware of the following characteristics:

- non-compliance to national laws and/or international or regional conventions or instruments relating to greenhouse gas emissions in a country listed under the Annex 1 of the Kyoto Protocol or to the relevant national strategy, if any, in another country
- lack, in the host country, of a regulation that is consistent with the reference frame including with respect to the rules in place in reference countries (except if, when missing, the client commits at the satisfaction of the Bank to voluntarily meet the regulation of a reference country in terms of shale gas)
- critical impact on a protected area or on wetlands of international importance covered by the Ramsar Convention
- the project is located within a site listed on the UNESCO World Heritage list
- non-compliance to the IFC Performance Standards (or to similar standards when a export credit agency or a multilateral institution is involved in the financing) or the Environment, Health and Safety Guidelines, in particular with respect to forced displacement of population or impact on critical natural habitats¹⁰
- lack of local regulatory procedures for controlling the well tightness or for well abandonment as appropriate (except if, when missing, the client commits at the satisfaction of the Bank to voluntarily meet the regulation of a reference country in terms of shale gas)
- lack of disclosure of the chemical additives used for hydraulic fracturing or use of an additive prohibited in reference countries
- distance deemed as insufficient between underground aquifers and hydrocarbon-producing zones
- lack of water supply survey or water supply plan deemed inappropriate by the relevant regulatory authorities
- treatment of waste water deemed inappropriate
- lack of a policy/ plan for managing methane emissions, consistent with the principles defined above
- lack of public consultation in the context of a major local protest against the project

¹⁰ Compliance to the Standards and Guidelines is assumed in OCDE high income countries

6. Implementation

The Policy will be communicated to the client.

Where the transaction is directly linked to a particular shale oil and gas project, the project will be assessed against all the criteria above.

Where the transaction is not directly linked to such a project but where the client is significantly involved in this activity, the above analysis criteria will be taken into account when assessing the positioning of the Bank vis-à-vis the client. Past developments and potential plans for improvement would be taken into account. The exclusions criteria will be assessed against the current project(s) of the client within the frame of the usual exchange of information with the client. The regular reviews of the relationship with the client will address an update of the compliance of the client with the principles of the present Policy.

The Bank will not participate to the envisaged financing or investment when an exclusion criterion has been identified or when the outcome of the general assessment is negative. Any potential exceptional situations will be handled in accordance to section 7 below.

Where the transaction is an advisory mandate, the Bank will seek to promote the principles included in this Policy. The Bank will not enter into an advisory mandate when aware at the date of the mandate that the envisaged project exhibits an exclusion criterion. When considering financing a project for which the Bank has acted as financial advisor, it shall only do so in compliance with the present Policy, including in respect of the exclusion criteria.

7. Exceptions

Transactions that present uncertainty with respect to compliance with the Policy shall be referred to the CERES committee for recommendation. If the committee considers that the transaction does not conform to the Policy, such transaction will be subject to a final arbitration by the General management of Crédit Agricole CIB.

8. References and glossary

Reference countries: to date, the United-States are considered as reference country.

Wetlands of international importance covered by the Ramsar Convention: cf.
<https://www.ramsar.org/sites/default/files/documents/library/sitelist.pdf>

Site listed on the UNESCO World Heritage list:
cf. <http://whc.unesco.org/en/list/>

Natural Gas STAR Program:
<https://www.epa.gov/natural-gas-star-program>

One Future coalition:
<http://www.onefuture.us/>

API's Environmental Partnership:
<https://theenvironmentalpartnership.org/>