

CSR SECTOR POLICY - Nuclear plants and fuel cycle facilities

1. Scope of the policy

The present policy (the Policy) applies to all forms of involvement of Credit Agricole CIB (the “Bank”) in the nuclear plants and fuel cycle facilities sector (including nuclear fuel conversion, enrichment, storage and reprocessing facilities). Are concerned the financings, advisory mandates and investments activities directly linked to the construction of a nuclear plant or to a fuel cycle facility. The policy also applies to financial support to companies operating such plants and facilities. Mining, research, medical, food and military activities are excluded of the scope of the Policy.

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

Nuclear energy is usually regarded as the only source of energy that is both not intermittent, low carbon, widely available and economically competitive. It is therefore likely to play an important role in the energy mix of a country.

There is however a number of issues associated with nuclear energy (safety, waste management...) which require specific attention and result in a number of States willing to limit the share of nuclear energy in their energy mix. Rules related to nuclear safety definitively constitute one of the key issues of the sector.

A set of principles and standards has been developed by the International Atomic Energy Agency and is a useful reference frame. States keep however a fundamental role in regulating this activity. In particular, national safety agencies play a major role in order to ensure that the necessary safety conditions are applied when a civil nuclear program is developed. The existence of an appropriate regulatory frame and the establishment of a skilled safety agency are thus two key elements of a country’s capacity to accommodate a nuclear project.

The choice of the technology, the specific characteristics of the project (including its location) and the experience of the operators are other important issues. Only a few OECD countries have at the same time a first-rate expertise, a national safety agency that meets best practice and usually a well developed nuclear industrial sector. They are at the forefront of taking into account the lessons of nuclear accidents by continuously maintaining an up-to-date safety level for existing operations and by researching and developing technologies which enable to reach the highest possible level of safety (in particular third-generation reactors¹). These countries may be regarded as reference countries (the “Reference Countries” as defined in section 8) in order to assess whether a given existing or new technology is acceptable.

This Policy comes as a supplement to the rules regarding energy policies from Countries and the investment policies from the clients of the Bank and is not intended to supplant them. Thus, it is not intended to answer to whether nuclear energy is desirable in a given national context or whether a specific nuclear project should be developed. It seeks to state the CSR² analysis criteria and

¹ This generic name means the new reactors generation which design incorporates the lessons drawn from the Three Miles Island and Chernobyl accidents. They include for instance some passive safety devices such as core catchers and emergency core cooling systems that can work in the event of loss of all power supply. By extension, the feedback from the Fukushima accident according to the results from ongoing complementary safety investigations is obviously necessary. Compliance with the safety targets for new reactors as published by WENRA in November 2010 (or equivalent text) is an appropriate benchmark..

² Corporate Social Responsibility

requirements of the Bank in the nuclear sector according to the identified societal issues. It supplements the implementation of the Equator Principles for project finance transactions.

3. Reference frame

In appraising financings and investments opportunities in the nuclear sector, the Bank will be guided by the following conventions, initiatives or institutions:

- the International Atomic Energy Agency (IAEA) and in particular the IAEA Safety Standards, the Convention on Nuclear Safety, the Convention on the Physical Protection of Nuclear Materials, the Joint Convention on the Safety of Spent Fuel management and on the Safety of Radioactive Waste management
- the Non Proliferation Treaty
- the International Convention for the Suppression of Acts of Nuclear Terrorism
- the Vienna Convention on Civil Liability for Nuclear Damage, the Paris Convention on Third Party Liability in the Field of Nuclear Energy and the Convention on Supplementary Compensation for Nuclear Damage
- the Euratom treaty
- the Nuclear Energy Agency
- the work of the Multinational Design Evaluation Program
- the reference documents released by the European regulators' associations European Nuclear Safety Regulator Group (ENSREG) and Western European Nuclear Regulators' Association (WENRA)
- the guidelines and documents relative to best practice released by the professional association World Association of Nuclear Operators
- the Nuclear Power Plant Exporters' Principles of Conduct, initiative led by important actors of the sector
- the standards of the World Bank group and in particular the IFC's Performances Standards and Environmental Health and Safety Guidelines

4. Analysis criteria

Nuclear projects will be analysis according 4 dimensions:

1. the technology used and the technical characteristics of the project
2. the capability of the host country to monitor a nuclear project, especially through its national safety authority
3. the capability of the operator to operate the nuclear project
4. the environmental and social impacts

4.1. Technology and technical characteristics of the project:

The technology will be analysed against the IAEA standards.

The technology will also be assessed against the sector best practices defined as those of the Reference Countries. The technology used will be regarded as meeting the standards of the Reference Countries:

- in the case of the construction of a greenfield power plant, if at least one of the following condition is met:
 - construction of a similar project is under way or has been achieved from less than 5 years in a Reference Country,
 - the safety agency of a Reference Country has validated the generic design
 - when there is no similar project in Reference Countries, a positive benchmark has been performed
- in the case of an existing power plant, if at least one of the following conditions is met:
 - a similar power plant (including with respect to the possible improvements brought in order to enhance safety) is being operated in a Reference Country,
 - when there is no similar power plant in Reference Countries, a positive benchmark has been performed

Furthermore, for new projects being developed in a member country of Euratom, the opinion of the European Commission given pursuant to Article 43 of the Euratom treaty will be an important assessment criterion.

In addition to the national authorisation process, the Bank may request that an independent expert assists it in assessing the project, in particular with respect to its specific characteristics and location.

4.2. Host country:

The capability of the host country will be assessed on the basis of the nuclear experience of the country, the ability of its safety authority to perform its tasks, the level of international cooperation and whether appropriate measures are in place in relation to decommissioning and waste management.

The national safety agency has a crucial role to play as it has to assess the safety of the technology used, to validate the design of the project, to verify that specific risks have been accurately considered (including with respect to the location of the project), to deliver construction and operation permits and to monitor the quality of construction and the operation of a nuclear asset.

The capability of a safety agency can be assessed on the basis of its material and human resources, its sanctioning power, its level of independence (from the administration, the industry and any lobby group) and its level of transparency and international cooperation. The IAEA inspection reports intended to assess the institutional framework and the national safety agency (Integrated Regulatory Review Service or IRRS) are a proper benchmark in this respect. Disclosure of the findings will be regarded as a good practice.

A country will be regarded as experienced if there is a history of more than 300 reactor-years³ or more than 10 reactors are being operated. A country will be regarded as a new comer if there is less than 2 reactors that have been operated during more than 5 years.

Incident statistics can be a useful assessment criterion in the case of experienced countries..

When the host country is not regarded as experienced, a peer review of the regulatory authority by the IAEA (known as IRRS mission) prior to the commissioning of the plant will be regarded as a good practice (if such a mission didn't take place in the past 5 years). Its findings will have to be disclosed (or at a minimum shared with the Bank) and a commitment to implement the recommendations to be taken.

When the host country is regarded as new comer, special attention will be paid to sector regulation, waste management, provisions for civil liability with respect to nuclear energy, public consultation processes,, situation of the country in terms of perception of transparency and corruption and the possible existence of conflict zones. A peer review of the regulatory authority by the IAEA (IRRS mission) will be expected prior to the commissioning of the project.

4.3. Operator:

Beyond the financial aspects, the capability of the operator will be assessed in particular on the basis of:

- its past experience (i.e. number of reactors already operated, incidents statistics),
- its ability to access to sufficient skilled resources,
- its knowledge of local conditions,
- its safety monitoring management including whether the safety monitoring service is independent from operating activities and whether periodic monitoring is performed

IAEA missions or peer reviews reports (Operational Safety Review Team or OSART, Pre-OSART, World Association of Nuclear Operator or WANO as the case may be) are a useful basis in this respect. Disclosure of the findings of the IAEA missions is considered to be good practice.

An IAEA or a peer review mission (Pre-OSART, OSART, WANO as the case may be) of less than 10 years with respect to a reactor of the same technology and operated by the same operator in the same country would be considered as good practice. The findings should be disclosed (or at a minimum shared with the Bank) and a commitment to implement the recommendations should be taken.

4.4. Environmental and social impacts:

In particular, the following environmental and social aspects will be examined:

- impacts of offtake and discharge of water used for cooling operations
- potential impacts on critical natural habitats (including on protected areas and wetlands of international importance covered by the Ramsar convention)
- forced physical or economical displacement of population due to the lost of goods or access to lands
- potential impact on significant cultural site (in particular sites listed on the UNESCO World Heritage list)

³ This threshold corresponds to the 1st tier of countries with an experience with civil nuclear reactors.

- environmental legacy from past operations such as soil contamination when the project implies the renovation or reactivation of a site or when former industrial sites are used

5. Exclusion criteria

The Bank will not participate in the financing of any project if aware of the following characteristics:

- the host country is not member of the International Atomic Energy Agency
- the host country had not ratified the Convention on Nuclear Safety, the Convention on the Physical Protection of Nuclear Materials or the Joint Convention on the Safety of Spent Fuel management and on the Safety of Radioactive Waste management or has not taken the appropriate measures as provided for in these conventions
- the host country had not ratified the Non Proliferation Treaty (or has not signed a non proliferation agreement with a Reference Country)
- the host country had not signed or ratified the International Convention for the Suppression of Acts of Nuclear Terrorism
- the national safety agency of the host country (or the equivalent public body) has not the statutory power to issue an authorisation and to conduct examinations that can lead to sanctions
- the national safety agency has not been audited by the IAEA (IRRS), an audit is not being considered and no cooperation agreement has been entered with a national safety agency of a Reference Country
- the technology does not comply with the IAEA standards
- when an opinion of the European Commission had be given pursuant to Article 43 of the Euratom treaty, such opinion is negative
- the project has not received the required clearances from the competent national authorities
- no periodic monitoring of the radioactivity is performed in and around the facility
- the project has a 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

or when it has not received, in its opinion, satisfactory answers with respect to:

- the technology doesn't meet the standards of the Reference Countries as defined in section 4.1.
- the operator has never been the subject of an IAEA or a peer review mission (Pre-OSART, OSART, WANO) and no such mission is being contemplated
- the host country is a new comer and no pre-OSART mission by the IAEA is being considered prior to commissioning
- the host country is a new comer and an IRRS inspection by the IAEA has not been performed and is not considered
- material non-compliance with the IFC Performance Standards (or with similar standards when a export credit agency or a multilateral institution is involved) or the Environment, Health and Safety Guidelines, in particular with respect to displacement of people and impact on critical natural habitats

6. Implementation

Where the transaction is directly linked to the construction of a nuclear plant, the project will be assessed against all the analysis criteria above that will all be taken into consideration. The Bank may feel comforted by the assessment performed by public financial institutions (multilateral institutions, development agencies, export credit agencies...) insofar those institutions have similar policies or undertake assessment of projects according to the analysis criteria of the present policy.⁴

Where the transaction is directly linked to the refinancing or the operation of an existing asset, the project will be assessed according to the same analysis and exclusion criteria with the exception of the criteria related to the construction of new projects (authorisation process, pre-OSART missions).

Where the transaction is not directly linked to the construction, the refinancing or the operation of a specific nuclear plant but where the client operates an industrial asset covered by the present policy, the Policy will be passed on to the client. The above analysis criteria will be taken into account when assessing the positioning of the Bank vis-à-vis the client. Past developments and the potential plans for improvement could be taken into account. The exclusions criteria will be assessed against the

⁴ Also, when applicable, the Bank may feel comforted by the due diligences performed under the Nuclear Power Plant Exporters' Principles of Conduct by a company which has adopted these principles.

current project of the client and the countries where the client mostly operates within the frame of the usual exchange of information with the client.

The financings and investments covered by the Policy but linked to nuclear assets other than nuclear plants (preparation and reprocessing of nuclear fuel, waste management) will respect similar principles.

Whatever the transaction is, if an exclusion situation is identified or if the outcome of the general assessment is negative, the Bank will not participate in the contemplated financing or investment. Any potential exceptional situation will be handled in accordance with 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 definitely 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

INES scale: international scale for assessing the significance of a nuclear or radiological event. Events are classified at 7 levels, level 1 being an anomaly and level 7 a major accident.

cf. <http://www.iaea.org/Publications/Factsheets/English/ines.pdf>

Reference Countries: are regarded as Reference Countries the high income OECD countries that have the following characteristics:

- the country ranks among the 1st tier in terms of experience (ranking according to the number of reactor-years),
- the status and the functioning rules of the national safety agency appear in line with the IAEA recommendations (with respect to independence, sanctioning power,...)
- there has been no accident rated 4 or above on the INES scale within the past 5 years .

Euratom: the European Atomic Energy Community established by a treaty in 1957

cf. <http://www.euratom.org/>

Wetlands of international importance covered by the Ramsar Convention:

http://www.ramsar.org/cda/fr/ramsar-documents-list/main/ramsar/1-31-218_4000_1

Site listed on the UNESCO World Heritage list:

<http://whc.unesco.org/fr/list/>

Countries members of the International Atomic Energy Agency:

cf. <http://www.iaea.org/About/Policy/MemberStates/index.html>

Countries having ratified the Convention on Nuclear Safety:

cf. http://www.iaea.org/Publications/Documents/Conventions/nuclearsafety_status.pdf

Countries having ratified the Convention on the Physical Protection of Nuclear Materials:

cf. http://www.iaea.org/Publications/Documents/Conventions/cppnm_status.pdf

Countries having ratified the Joint Convention on the Safety of Spent Fuel management and on the Safety of Radioactive Waste management:

cf. http://www.iaea.org/Publications/Documents/Conventions/jointconv_status.pdf

Countries having ratified the International Convention for the Suppression of Acts of Nuclear Terrorism:

cf. http://treaties.un.org/Pages/ViewDetailsIII.aspx?&src=UNTSO&mtdsg_no=XVIII~15&chapter=18&Temp=mtdsg3&lang=en#Participants

Countries having ratified the Non Proliferation Treaty:
cf. <http://unhq-appspub-01.un.org/UNODA/TreatyStatus.nsf>