



Corporate social responsibility

SECTOR POLICY – NUCLEAR POWER



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Preamble

As part of its commitment to corporate social responsibility (CSR), BNP Paribas has developed a consistent policy regarding its financial products and services for the civil nuclear power industry.

In 2010, the worldwide nuclear power sector provided around 2 755 TWh, almost 1/8th of the electricity produced in the world¹. The most important producing countries are the United States of America (with 104 nuclear reactors) and France (58 reactors)². According to the IEA³, the share of nuclear power in generation will continue increasing with more than 130 GW of new additions over the period between 2010 and 2035 and extended lifetime for several plants.

Furthermore, countries that chose to develop their nuclear industry consider that it has positive impacts, especially on economic development, energy security of supply and greenhouse gas emissions reduction.

BNP Paribas, as a financial institution, may provide financial products and services to governmental entities supporting and / or to companies developing civil nuclear power. BNP Paribas considers, as part of its CSR policy, that it is essential - both for the countries under consideration and for the international community as a whole - that any country undertaking a nuclear power program or developing additional nuclear power plants is not only willing but also capable of meeting essential requirements regarding safety, security, non-proliferation, protection of populations and of the environment for future generations.

By the release of this policy, BNP Paribas wishes to ensure that the projects it contributes to finance are in line with the principles of monitoring and mitigating environmental and social impacts in the nuclear power sector.

BNP Paribas has defined the present sector policy to identify specific requirements to select projects that take into account the above-mentioned considerations. This sector policy also establishes consistent rules for the bank worldwide activities.

This policy may evolve over time. BNP Paribas will especially consider and take into account studies and policies regarding best practices for nuclear plants for electricity generation and may update this document based on new information and parallel initiatives.

¹ 2012 World Energy Outlook. 2 756 TWh in 2010 were generated through nuclear power, i.e. 12.9% of the total 21,431 TWh generated in the world <http://www.iea.org/publications/freepublications/publication/kwes.pdf>

² http://www.iaea.org/About/Policy/GC/GC56/GC56Documents/French/gc56-2_fr.pdf

³ http://www.worldenergyoutlook.org/docs/weo2010/WEO2010_ES_English.pdf



1. Sector policy

1.1 Objective

This policy defines a set of rules and procedures regarding financial products and services provided by BNP Paribas entities. They aim at addressing ethical issues of the nuclear power sector and at establishing guidelines for conducting business in a responsible manner.

1.2 Scope

Geographical limits: worldwide.

Geography: all BNP Paribas Group entities.

BNP Paribas Group entities: this policy applies to all business lines, branches, subsidiaries and joint ventures of which BNP Paribas has the operational control. When BNP Paribas establishes new joint ventures in which it has a minority stake, it strives to include its standards as part of the joint venture agreement.

Nuclear Power Plant projects: construction and operation of a Nuclear Power Plant (NPP). This policy also applies to critical equipment of an NPP (nuclear island).

Nuclear Companies: it refers, either to companies involved in a NPP as owner⁴ or operator of the nuclear island, or to companies involved in the nuclear fuel cycle.

Financial products & services: this policy applies to all financing activities provided by BNP Paribas (lending, debt and equity capital markets, guarantees and advisory work, etc.). This policy covers all new NPP projects and Nuclear Companies. For financing agreements with Nuclear Companies that predate this policy, the rules and standards set out below will be applied as such agreements are due for review.

Asset management: this policy applies to all BNP Paribas entities managing proprietary assets and third-party assets, with the exception of index-linked products. External asset managers are actively monitored and encouraged to implement similar standards.

1.3 Rules and standards of the policy

The nuclear industry and the NPP market in particular, are highly regulated at both national and international levels. BNP Paribas expects NPP projects and involved entities to comply with existing local laws as well as with international conventions ratified by their operating countries. BNP Paribas recognizes the key role of international institutions and expects the nuclear operators to enforce the relevant IAEA standards. International cooperation and best practice sharing are critical in that industry and BNP Paribas expects its clients to demonstrate that the lessons drawn from past nuclear accidents are being taken into account.

In addition to the compliance with these international and national regulations, this policy sets also additional criteria so that BNP Paribas is in a position to provide financial products and services to NPP projects and/or to Nuclear Companies.

These criteria were identified to ensure that NPP projects or Nuclear Companies being reviewed by BNP Paribas are in line with the BNP Paribas objectives to mitigate their environmental and social impacts. These criteria deal with nuclear governance in the host country, capacity of the involved companies,

⁴ A company is considered to be the "owner" if:

-either it has a majority stake in the nuclear company

-or it has a minority stake but in which it holds a blocking minority of the voting rights. The meaning of a blocking minority depends on national legislation.



specificities of the NPP and Nuclear Companies. Additional criteria may be added to this list and looked upon depending on the specifics of each project.

This policy sets mandatory requirements as well as evaluation criteria. Mandatory requirements are to be understood as sine qua non: those have to be met without exception before BNP Paribas agrees to provide financial products and services to NPP projects or Nuclear Companies.

In addition to these mandatory requirements, evaluation criteria have been identified to develop the analysis performed by BNP Paribas. There are qualitative and quantitative indicators used to check if the standards of an individual NPP project or Nuclear Company are comparable to the standards enforced in a short list of industrialized countries which have demonstrated a high level of safety and reliability in the operation of a large NPP fleet ("Reference Nuclear Countries").

This evaluation might lead BNP Paribas to undertake supplementary due diligence potentially resulting in additional requirements or in declining its involvement, even if the mandatory requirements are met. In the case of a NPP project, any external advisor appointed in the course of the due diligence shall be approved by BNP Paribas. Taking into account legal and contractual confidentiality constraints, BNP Paribas will use its best efforts to have such reports disclosed.

In the particular case of pure financial advisory services provided to a client being a host country public entity, it is understood that the result of the evaluation may be not fully satisfactory at the time of mandate signing in case the host country is a new entrant in nuclear power. With the objective of supporting a continuous improvement approach, BNP Paribas will use its best efforts within the prerogatives of its mandate to convince its client that these requirements are of fundamental importance and need to be implemented. BNP Paribas will terminate its mandate should the client refuse to implement such requirements.

BNP Paribas has adopted the Equator Principles (EPs), a financial industry benchmark for determining, assessing and managing environmental and social risks in projects. In addition to mandatory requirements and evaluation criteria set by this Policy, BNP Paribas will thus also apply the EPs to lending and advisory mandates related to NPP projects, in line with the EPs application scope detailed in the official text.



1.3.1. Nuclear Power Plant projects

1.3.1.1. Host country

BNP Paribas does not want to be involved in providing financial products and services to NPP projects in countries without adequate governance on the nuclear sector, as defined by the mandatory requirements.

Mandatory requirements

- Proper legal framework:
 - An official approval by the government and the supervising bodies of the civil nuclear power sector has been obtained for the NPP project,
 - Protection of workers is required in the regulatory framework,
 - Existence of a plan for the development of long-term solutions for the management of high and intermediate level nuclear waste,
 - Existence of a plan for the dismantling of NPPs.
- International cooperation:
 - Host country is signatory to the Non Proliferation Treaty (or an equivalent bi-lateral agreement on nuclear energy safety and proliferation with a Reference Nuclear Country),
 - The last available Comprehensive Safeguards Agreement Report by the IAEA doesn't mention any specific issues or any lack of information that would hinder the monitoring of the nuclear facilities of the host country,
 - The NPPs of the host country dedicated to producing electricity are used for peaceful purposes⁵,
 - Participation in the IAEA Incident Reporting System (IRS) (in case of a country with no prior nuclear facility, this participation is planned before the commissioning of the first NPP in such new entrant country).
- Nuclear Safety Agency:
 - Existence of a Nuclear Safety Agency (NSA) or an equivalent state agency that covers at least the control of Nuclear Power Plants throughout its life cycle,
 - The NSA has the statutory power to run inspections that can lead to sanctions,
 - The NSA has been subject to an audit mission from the IAEA (IRRS, Integrated Regulatory Review Service) or has planned such an audit. If not, a cooperation agreement should exist with the NSA of a Reference Nuclear Country,
 - The NSA has revised its safety standards following past nuclear accidents⁶.

⁵ This is reflected by ensuring that an IAEA Comprehensive Safeguards Agreement or equivalent is in force and that the latest safeguards conclusion confirms that nuclear material remains in peaceful activities.

⁶ Three Miles Island, Tchernobyl, Fukushima.



- Political stability and country security:

Host country offers a satisfactory level of stability allowing visibility over a safe and long-term operation of the NPP. This level of stability and security is assessed against the following criteria:

- Host country is not subject to international sanctions,
- NPP project is not located in a conflict zone⁷,
- Existence of national and/or local prevention and emergency plans adapted to the geographical specifics, including external hazards (such as flooding or earthquake risks).

Evaluation criteria

In addition to the above mandatory requirements, BNP Paribas will consider further evaluation criteria to assess the standards of the host country against those reached by a Reference Nuclear Country. The objective of these criteria is to evaluate how the host country national context effectively enables the monitoring and mitigation of environmental and social impacts.

BNP Paribas recognizes the central role played by the NSA and will further investigate its ability to perform its role, its effective independence, transparency, power of sanction and international cooperation, especially with the IAEA. BNP Paribas will request access to IAEA reports as they can be helpful in this evaluation process.

BNP Paribas will evaluate the political context of the host country regarding nuclear acceptance, and its political stability and security. The evaluation will also cover the host country crisis management capacity and the quality of its regional cooperation concerning the management of accidents.

BNP Paribas will also consider the host country policy, or plan, for radioactive waste management (including its funding), in comparison to that of Reference Nuclear Countries.

BNP Paribas will also take into account additional country risk criteria that apply to any financing transactions it considers and will take into account applicable financial regulations.

⁷ The conflict zone list is determined by BNP Paribas on the analysis of data provided by several external research institutes or providers, including: the Heidelberg Institute for International Conflict Research, the International Institute for Strategic Studies, Maplecroft, the International Crisis Group, the Department of Peace and Conflict Research from the University of Uppsala, etc.



1.3.1.2 NPP main industrial parties

The main industrial parties include the leading shareholders of the project, the operating company and the construction companies in charge of the design and supply of the nuclear island. BNP Paribas does not want to be involved in providing financial products and services to NPP projects undertaken by such parties that do not have sufficient capacity as defined by the mandatory requirements.

Mandatory requirements

- Operating licenses of the company or entity in charge of the operation of the NPP are neither suspended in the host country nor in any Reference Nuclear Country,
- The operator has an independent chain of control to monitor safety of its nuclear operations.

Evaluation criteria

In addition to the above mandatory requirements, BNP Paribas will consider further evaluation criteria to assess the performance of the main industrial parties against best industry practice. The objective of these criteria is to evaluate the capacity of the main industrial parties of the NPP project to effectively monitor and mitigate environmental and social impacts.

BNP Paribas will therefore evaluate their long-term financial strength as well as their experience (including experience of their top management) and track record regarding safety, security and environment. BNP Paribas will also evaluate the thoroughness of their subcontractor selection process as well as their cooperation with international industrial parties from a Reference Nuclear Country.



1.3.1.3 Nuclear Power Plant

BNP Paribas does not want to be involved in providing financial products and services to projects with current or planned nuclear activities that do not have adequate technical standards as defined by the mandatory requirements.

Mandatory requirements

- The technical due diligence (covering also environmental, social and safety aspects) of the NPP project, performed by an external consultant, is comprehensive and leads to satisfactory conclusions,
- The proposed reactor of the NPP or a reactor with a similar design is operated in a Reference Nuclear Country or has been validated by the NSA of a Reference Nuclear Country,
- The entity (company, department, team...) in charge of controlling onsite safety is independent from the entity (company, department, team...) in charge of operating the NPP,
- Arrangements are in place to ensure radiation monitoring, both on site and around the site,
- Protection of workers is ensured in the nuclear facility,
- Emergency programs and responses in case of major accident are prepared by the project and adapted to local geographical specifics, especially regarding flooding risks and seismic risks,
- A facility exists, or is planned together with the NPP project, for the temporary storage of nuclear waste produced by the NPP.

Evaluation criteria

In addition to the above mandatory requirements, BNP Paribas will consider further evaluation criteria to assess the NPP against in the standards of a Reference Nuclear Country. The objective of these criteria will be to evaluate the safety and security of the proposed NPP project.

BNP Paribas will:

- evaluate the management organization and the experience of key staff at the NPP and will seek to determine suitability of the proposed radioactivity monitoring on site and around the site.
- seek to obtain the safety and security track record of the proposed NPP project, except for new NPPs for which such data are not available.
- Evaluate the extent of the operator international cooperation with its peers, in particular with those from a Reference Nuclear Country.
- Assess the site adequacy, i.e. evaluate the probability of beyond-design external initiating events at the NPP's location (earthquake, flooding, hurricanes, etc.).



1.3.2 Financial services for nuclear companies

BNP Paribas expects Nuclear Companies to comply with existing local laws and with licensing arrangements as well as with international conventions ratified by their operating countries. In addition to compliance with these regulations, this policy sets additional criteria to be respected by Nuclear Companies.

BNP Paribas does not want to be involved in providing financial products and services to Nuclear Companies unless they have sufficient capacity as defined by the mandatory requirements.

1.3.2.1 Nuclear Companies involved in a NPP

Nuclear Companies in this section refers to companies involved in a nuclear power plant as owner or operator of the nuclear island.

Mandatory requirements

- The applicable mandatory requirements detailed in 1.3.1.1 (“Host country” section) have to be applied to the incorporation country of the Nuclear Company and of its parent company,
- The Nuclear Company only owns or operate NPPs whose nuclear reactors have a design which is similar to reactors operated in a Reference Nuclear Country or which has been validated by the NSA of a Reference Nuclear Country,
- There is an independent chain of control to monitor the safety of the nuclear operations,
- The Nuclear Company has a global policy ensuring radiation monitoring (both on site and around the site) and the protection of workers.

Evaluation criteria

In addition to the above mandatory requirements, BNP Paribas will consider further evaluation criteria to assess the standards of Nuclear Companies against those of the main Nuclear Companies of a Reference Nuclear Country (for those involved in a NPP). The objective of these criteria is to evaluate the capacity of the Nuclear Company to effectively monitor and mitigate environmental and social impacts.

BNP Paribas will therefore evaluate their long-term financial strength as well as their experience (including experience of their top management) and track record regarding safety, security and the environment. BNP Paribas will also evaluate the thoroughness of their subcontractor selection process, their transparency, as well as their cooperation with peers and supervisory bodies (in particular those from Reference Nuclear Countries).



1.3.2.2 Nuclear Companies involved in the nuclear fuel cycle

Nuclear Companies in this section refers to companies involved in the nuclear fuel cycle (defined as uranium enrichment, fuel fabrication, used fuel recycling and/or storage and disposal of nuclear waste).

Mandatory requirements

- The mandatory requirements detailed in 1.3.1.1 (“Host country” section) have to be applied to the incorporation country of the Nuclear Company and of its parent company,
- Operating licenses of the Nuclear Company are not suspended in the host country nor in any Reference Nuclear Country,
- There is an independent chain of control to monitor the safety of the nuclear operations,
- The Nuclear Company has put in place policies and procedures to prevent and limit any radiation emission.

Evaluation criteria

In addition to the above mandatory requirements, BNP Paribas will consider further evaluation criteria to assess the standards of Nuclear Companies against those of main Nuclear Companies of a Reference Nuclear Country (for those involved in the nuclear fuel cycle). The objective of these criteria is to evaluate the capacity of the Nuclear Company to effectively monitor and mitigate environmental and social impacts.

BNP Paribas will therefore evaluate their long-term financial strength as well as their experience (including the experience of their top management) and track record regarding safety, security and environment. BNP Paribas will also evaluate the thoroughness of their subcontractor selection process, their transparency, as well as their cooperation with peers, supervisory bodies (in particular those from Reference Nuclear Countries), and international research programs.



2. Group-level implementation mechanisms

Results of the evaluation according to the present policy will provide elements for decision making by BNP Paribas. As and when necessary, an ad hoc senior management committee shall examine these results. If required, BNP Paribas may request additional due diligence before deciding on the acceptability of the transaction.

Operational tools and awareness workshops will be rolled out to ensure that Group's staff is able to implement this CSR sector policy.

Asset Management and services:

BNP Paribas entities managing third-party assets will progressively implement all the relevant requirements of this policy. Existing and potential investors have to be informed of the existence and implications of this policy.

3. Disclosure and follow-up

BNP Paribas' stakeholders will be informed of the existence and the content of this policy, as well as of any potential future updates. Such policy will be posted on BNP Paribas' website. Furthermore a copy will be systematically provided to our clients and potential clients as part of the due diligence process or upon discussion of any financial or advisory services to be provided subsequent to the official release date of this policy.

BNP Paribas will review this policy regularly and in the light of the prevailing circumstances it may update it to make sure it is in continued conformity with national and international regulations and best practices. BNP Paribas welcomes any constructive feedback and comments on this policy.

4. Disclaimer

In order to comply with regulations and to implement the principles defined in its internal procedures and sector policies, BNP Paribas does its best to get information, particularly from nuclear power companies, on their sustainability policies and practices. BNP Paribas bases its policy on the information gathered from nuclear power companies and from its partners. However, it is dependent on the quality, accuracy and up-to-datedness of information.



Glossary

The following definitions apply in this policy:

Comprehensive Safeguards Agreements	“Safeguards are activities by which the IAEA can verify that a State is living up to its international commitments not to use nuclear programs for nuclear-weapons purposes” (Extract from IAEA FAQ). Comprehensive Safeguards Agreements are set between countries and the IAEA to enable the latter to pursue various such verifications.
Equator Principles	The Equator Principles are a financial industry benchmark for determining, assessing and managing environmental and social risks in projects. The Group has adopted the Equator Principles in October 2008. The official text is available at the following address: http://www.equator-principles.com/
IAEA	International Atomic Energy Agency. The IAEA is the United Nations’ centre of cooperation in the nuclear field. It was set up in 1957 and works with its Member States and multiple partners worldwide to promote safe, secure and peaceful nuclear technologies.
INES Scale	<p>International Nuclear and Radiological Event Scale. It is a tool for communicating to the public in a consistent way the safety significance of nuclear and radiological events (including events from industrial and medical use of radiation sources, operations at nuclear facilities and transport of radioactive material).</p> <p>Events are classified on the scale at 7 levels:</p> <ul style="list-style-type: none"> • Levels 1–3 are called "incidents" • Levels 4–7 are called "accidents" <p>The scale is designed so that the severity of an event is about ten times greater for each increase in level on the scale. Events without safety significance are called “deviations” and are classified Below Scale / Level 0.</p>
IRRS	Integrated Regulatory Review Service. One of the IAEA services proposed to member states. An IRRS mission aims at comparing the regulation of a country with the international regulation and the best practices available in the world.
IRS	Incident Reporting System. IRS is a joint initiative of IAEA and NEA (OECD Nuclear Energy Agency). This worldwide system collects and analyzes information provided by operators. Its ultimate objective is to enhance the safety of NPPs by reducing the frequency and severity of safety significant unusual events at NPPs worldwide.
NPP	Nuclear Power Plant. Power plant based on nuclear fission designed and operated for the production of electricity.
NPT	Non-proliferation treaty. The NPT is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote co-operation in the peaceful uses of nuclear energy and to help achieving nuclear disarmament and general and complete disarmament.
NSA	Nuclear Safety Agency. The NSA is a generic term for the administrative authority in charge of ensuring nuclear control and safety. It regulates nuclear safety and radiation protection in order to protect workers, patients, the public and the environment. It also contributes to informing the citizens.



Nuclear fuel cycle	For the purpose of this policy, the nuclear fuel cycle comprises the following activities: uranium enrichment, fuel fabrication, used fuel recycling and/or storage and disposal of nuclear waste.
OECD	Organisation for Economic Cooperation and Development. High income OECD countries are those with a Gross National Income (GNI) per capita of \$12,196 or more, based on the World Bank Atlas method.
Reference Nuclear Country	Defined as any country having demonstrated a high level of nuclear safety and reliability in the operation of a large NPP fleet. BNP Paribas defines Reference Nuclear Countries as high income OECD countries with top tier experience in operating NPPs (measured in reactor-years) and no nuclear accidents – as defined by the level 4 and above of the INES scale – recorded on a NPP during the last five years.

Definitions above are subject to change over time. We will monitor international developments and continue to follow internationally recognized conventions where possible.

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