

COAL-FIRED POWER GENERATION – SECTOR POLICY

Structure

Preamble	3
Sector policy	4
1 Objective	4
2 Scope	4
2.1 Geography	4
2.2 Business	4
2.3 BNP Paribas activities	4
3 Rules and standards	5
3.1 Financial services for Coal-Fired Power Plant projects	5
3.2 Financial services for Coal-Fired Power Generation companies	8
4 Group-Level Implementation Mechanisms	9
5 Policy Disclosure and Follow-up	9
6 Disclaimer	10
7 Appendices	11
7.1 Sector glossary	11

Preamble

As part of its commitment to corporate social responsibility, BNP Paribas has developed a consistent policy regarding its financial products and services for the coal-fired power generation (CFPG) industry.

Coal plays a significant role in the global energy mix. According to the International Energy Agency (IEA), as of 2013, approximately 41% of the world's electricity needs were provided by coal, making it the second source of primary energy after oil¹. Coal can contribute to the economic development of some countries by enabling low cost and reliable electricity access and by supporting their energy independency.

BNP Paribas also acknowledges that coal-fired power generation is a large emitter of carbon dioxide (CO₂) and a key contributor to climate change. According to the IEA, coal-fired power plants account for respectively 73% of CO₂ emissions from power generation and 29% of the total energy-related CO₂ emissions².

Therefore, a balance must be found between the needs for enhanced electricity access and economic development and the needs for reducing CO₂ emissions from human activities which is critical to limit climate change. Acknowledging the differentiated responsibilities of countries in the need to reduce greenhouse gas (GHG) emissions, BNP Paribas has adopted a differentiated approach in relation to coal-fired power plant (CFPP) projects, and further restricted the provision of financial products and services to CFPG companies³.

The best technologies available should be promoted to enhance CFPP efficiency and to reduce their environmental footprint. In addition to improving its GHG emission performance, BNP Paribas considers that it is also very important that any CFPG company meets essential requirements regarding health, safety and the protection of the environment for future generations.

BNP Paribas has defined the present sector policy to identify specific requirements to select CFPP projects and support CFPG companies that take into account the above-mentioned considerations.

This sector policy establishes consistent rules for the bank's worldwide activities.

¹ <http://www.iea.org/aboutus/faqs/coal/>

² The power sector accounts for 40% of the world's total energy-related CO₂ emissions (World Energy Outlook 2010).

³ CFPP projects and CFPG companies are defined in Section 1.2.

Sector policy

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 social and environmental issues of the coal-fired power generation sector and at establishing guidelines for conducting business in a responsible manner.

2 Scope

2.1 Geography

Worldwide.

2.2 Business

This policy covers:

Coal-Fired Power Plant (CFPP) projects: construction, including expansion and upgrading of a Coal-Fired Power Plant. Other projects linked to the coal-fired power industry are not included in this scope.

Coal-Fired Power Generation (CFPG) companies: utility companies involved in the power generation sector that owns or operates CFPPs and for which coal-fired power accounts for at least 30% of their total installed power generation capacity.

2.3 BNP Paribas activities

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.

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.). It covers all new CFPP projects and CFPG companies. For financing agreements with CFPG 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.

3 Rules and standards of the Policy

The coal-fired power generation sector is highly regulated at both national and international levels, particularly on air emissions. BNP Paribas requires CFPP projects and CFPG companies to comply with applicable laws and regulations as well as with international conventions ratified by their operating countries. This policy also sets additional criteria to be respected by CFPP projects and CFPG companies.

These criteria were identified to address the main issues highlighted in the preamble. Such criteria are split in two categories: mandatory requirements and evaluation criteria. Mandatory requirements are to be understood as *sine qua non*: those have to be met without exception before BNP Paribas considers providing financial products or services to a CFPP project or CFPG company. In addition to these mandatory requirements, evaluation criteria have been identified to develop the analysis performed by BNP Paribas. Based on the results of such complementary due diligence, BNP Paribas reserves its right to request additional requirements or decline its involvement even if the mandatory requirements are met.

3.1 Financial services for Coal-Fired Power Plant projects

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 CFPP projects, in line with the EPs application scope detailed in the official text⁴.

3.1.1 Host country

3.1.1.1 Mandatory requirements

BNP Paribas will not provide financial products and services to CFPP projects⁵ located in High Income countries⁶.

In addition, BNP Paribas will not provide financial products and services to CFPP projects located in countries that do not have:

⁴ www.equator-principles.com

⁵ CFPP projects where the CO₂ output will be captured and stored using carbon capture & storage (CCS), will be assessed on a case by case basis

⁶ As defined in the World Bank Country and Lending Groups classification

- A legal framework regarding occupational health and safety covering workers, and subcontractors;
- A legal framework covering air emissions and water discharges;
- A national commitment to limit GHG emissions;

3.1.1.2 Evaluation criteria

At the early stage of the decision-making process, BNP Paribas will carry out a preliminary analysis to understand the context in which the CFPP is planned. This analysis will be based on the following criteria:

- Energy security:
 - Availability and origin of coal for the host country;
 - Diversification of energy sources of the host country;
- Economic and social aspects:
 - Low energy cost and improvement of electricity access for the local population;
 - Status of the host country plan regarding carbon capture and storage (CCS) technology;

3.1.2 Coal-fired power plant project

3.1.2.1 Mandatory Requirements

BNP Paribas will only provide financial products and services to projects in non-High Income countries⁷ that meet the following requirements:

Technical requirements

- Greenfield CFPP projects⁸
 - For individual units above 350MW: the CFPP project must have a net energy efficiency (LHV)⁹ of at least 43%;
 - For individual units below or equal to 350MW: the CFPP project must have a net energy efficiency that meets a certain minimum level depending on its individual unit size;

⁷ All countries other than « High Income countries», as defined in the World Bank Country and Lending Groups classification

⁸ This includes power plants using coal only or coal and biomass as fuel, and /or combined heat and power plants (also known as cogeneration plants)

⁹ “Net energy efficiency” is to be understood as the Lower heating value (LHV) energy efficiency of the CFPP net of the plant’s own energy consumption.

and

- It is demonstrated that a larger and more efficient CFPP is not a viable alternative.
- Lower CO₂ emissions can be achieved by using CCS. For CFPP projects where the CO₂ output will be captured and stored using CCS, the above efficiency criteria will not apply.
- *For retrofitting of CFPP projects:* The CFPP must be brought into compliance with the applicable WB/IFC Environmental, Health, and Safety Guidelines for Thermal Power Plants and the resulting net energy efficiency must be either (i) brought to a level at least equal to the level required for a greenfield CFPP project or (ii) increased by at least 10% from the initial level.

Environmental & Social requirements

- The CFPP project has to comply with the applicable social and environmental laws.
- The CFPP project has to comply with the then applicable WB/IFC Environmental, Health, and Safety Guidelines for Thermal Power Plants covering sulphur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM), and greenhouse gases emissions, water consumption and discharge, as well as ash generation and disposal methods.
- The CFPP project must be subject to a social and environmental impact assessment, in order to mitigate the project impacts on surrounding communities and environment.
- The CFPP project must put in place a consultation process.
- The mitigation and compensation measures must take into account the nature and degree of the impacts on the affected communities. BNP Paribas may request the assistance of external experts for the assessment of this requirement.
- The CFPP project must put in place a grievance mechanism through which stakeholders' concerns can be raised and addressed.

3.1.2.2 Evaluation criteria

BNP Paribas will also carry out an analysis of the proposed project, based on the following evaluation criteria:

- The CFPP project has a human resources policy, covering the key requirements of the Main ILO Conventions (as defined in the glossary), regardless of the host country ratification status.

- The CFPP project's CO₂ intensity (measured in gCO₂ emitted per kWh generated) is lower than the average CO₂ intensity of the host country's fossil fuel-fired power plants (gas, oil, coal)¹⁰.
- The CFPP project is developed in line with the "CCS Ready"¹¹ criteria, as detailed below:
 - A specific study has been carried out to ensure that the facility is technically capable of being fully retrofitted for CO₂ capture;
 - It is technically and physically possible to connect retrofitted capture equipment to the existing facility;
 - There are realistic pipeline or other route(s) to storage of CO₂;
 - One or more potential storage areas have been appropriately assessed (safe geological storage of full lifetime volumes and rates of captured CO₂) or potential industrial use for CO₂ captured;
 - Other known factors (including any additional water requirements) that could prevent installation and operation of CO₂ capture, transport and storage have been identified and credible ways in which they could be overcome have been assessed;
 - Costs of retrofitting capture, transport and storage have been estimated;
 - There has been public engagement and consideration of health, security and environmental issues.

3.2 Financial services for Coal-Fired Power Generation companies

3.2.1 Mandatory requirements

BNP Paribas will only provide financial products and services to, or invest in, CFPG companies that meet the following requirements:

- The CFPG company has a diversification strategy to reduce the share of coal in its power generation mix¹². This diversification strategy must be at least as ambitious as the national commitment to limit GHG emissions of the country where its principal operations are located. The implementation of the strategy will be annually monitored.

¹⁰ As determined using the latest available data from the International Energy Agency (IEA).

¹¹ Based on the set of criteria published by The Global CCS Institute in their CCS Ready – Issues Brief 2010 n°1.

¹² In certain countries, the government imposes a national energy strategy on state-controlled companies. For such companies, BNP Paribas will nevertheless require that they take actions to lower their CO₂ intensity (e.g. through development of renewable energy projects, replacement of old power plants by modern ones, or energy efficiency improvements).

- The CFPG company discloses or can provide on demand its safety track record (work accidents, fatalities...).
- The CFPG company discloses or can provide on demand the following environmental data: atmospheric emissions of sulphur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM), and carbon dioxide (CO₂), as well as water consumption, ash generation and disposal methods.

3.2.2 Evaluation criteria

BNP Paribas will also carry out an analysis of the CFPG company, based on the following evaluation criteria.

- The CFPG company is not subject to regular and repeated criticism about its environmental, social and governance performance on material issues¹³, or is taking actions to address such issues if they have occurred.
- The CFPG company has a convincing environmental, social, health and safety track record.

BNP Paribas regular client acceptance policies constitute the basis of any engagement. For any transaction, BNP Paribas requires CFPG companies to have a transparent attitude regarding its activities, group structure and shareholding up to the ultimate level of control.

4 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 complementary due diligence before concluding on the acceptability of the transaction.

Operational tools and awareness workshops are 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. A transition is indeed necessary due to the fact that existing and potential investors have to be informed of the existence and implications of this policy.

5 Policy Disclosure and Follow-up

¹³ Such as severe controversies and incidents related to violations of any UN Global Compact Principles: <http://www.unglobalcompact.org/AboutTheGC/TheTenPrinciples/index.html>

BNP Paribas' stakeholders will be informed of the existence and the content of this policy. 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 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 alliance with national and international regulations and best practices.

BNP Paribas welcomes any constructive feedback and comments on this policy.

6 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 coal-fired power companies, on their sustainability policies and practices. BNP Paribas bases its policy on the information gathered from coal-fired power companies and from its partners. However, it is dependent on the quality, accuracy and up-to-datedness of information.

7 Appendices

7.1 Sector glossary

The following definitions apply in this policy.

CCS: Carbon Capture and Storage is a process consisting of the separation of CO₂, transport to a storage location and long-term isolation from the atmosphere. While CCS is a promising technology and a key climate change mitigation option for the future, it is unlikely to be widely applied on commercial basis before 2020, although opinions differ among various stakeholders. At the time of publication of this policy, there are three main technologies currently available:

- Pre-combustion CO₂ capture involves a previous gasification of coal to produce a gas stream of CO₂ and hydrogen, captured and stored after the segregation of the two gases.
- In Post-combustion capture CO₂ is captured from the flue gases by using a chemical solvent that reacts with CO₂. The cleaned flue gas is released into the atmosphere, while the captured CO₂ is transported to a storage site.
- Oxy-fuel combustion involves burning fossil fuel in nearly pure oxygen rather than in air. This produces a nitrogen free flue gas with water vapor and a high concentration of carbon dioxide as its main components. This makes it easy to further concentrate the flue gas to an almost pure stream of CO₂.

CCS Ready: According to the International Energy Agency (IEA)¹⁴, “a CO₂ capture ready power plant is a plant which can include CO₂ capture when the necessary regulatory or economic drivers are in place. The aim of building plants that are capture ready is to reduce the risk of stranded assets and ‘carbon lock-in’. Developers of capture ready plants should take responsibility for ensuring that all known factors in their control that would prevent installation and operation of CO₂ capture have been identified and eliminated. This might include:

- A study of options for CO₂ capture retrofit and potential pre-investments;
- Inclusion of sufficient space and access for the additional facilities that would be required;
- Identification of reasonable route(s) to storage of CO₂;

¹⁴ Source: IEA Greenhouse Gas R&D Programme, CO₂ Capture Ready Plants, Technical Study (in support of the G8 Plan of Action), 2007

Competent authorities involved in permitting power plants should be provided with sufficient information to be able to judge whether the developer has met these criteria”.

Main ILO Conventions:

- ILO Convention 87 on Freedom of Association and Protection of the Right to Organize
- ILO Convention 98 on the Right to Organize and Collective Bargaining
- ILO Convention 29 on Forced Labor
- ILO Convention 105 on the Abolition of Forced Labor
- ILO Convention 138 on Minimum Age (of Employment)
- ILO Convention 182 on the Worst Forms of Child Labor
- ILO Convention 100 on Equal Remuneration
- ILO Convention 111 on Discrimination (Employment and Occupation)

End of document