



# Green Notes Framework

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# 1. CONCEPT & APPROACH

In 2013, Crédit Agricole CIB launched «Crédit Agricole CIB Green Notes». Green Notes are bonds or any other type of financing raised by Crédit Agricole CIB whose proceeds are dedicated to funding environmental projects and companies. This development was driven both by Crédit Agricole CIB's willingness to respond to investors' demand for such thematic fixed income instruments and to contribute to the development of the Green Bond market worldwide. This is based on the bank's conviction that Green Bonds are very efficient tools to increase climate awareness within issuing institutions.

For several years Crédit Agricole CIB has been implementing various actions aimed at reducing the direct and indirect social and environmental footprint of its financing activities while seeking to generate positive social and environmental impacts. As an example, its Sustainable Banking team contributed to the launch and development of the Green Bond market as a leading arranging bank and as an issuer through the Green Notes programme.

Crédit Agricole CIB Green Notes are structured according to the principles laid down by the «Green Bond Principles». The Green Bond Principles are voluntary guidelines on recommended processes for the development and issuance of Green Bonds. Crédit Agricole CIB was among the four banks which drafted and founded these Green Bond Principles.

This document presents the methodology applied by Crédit Agricole CIB to select assets included in the portfolio of loans that backs the issuance of Green Notes by Crédit Agricole CIB (the "Green Portfolio")

Crédit Agricole CIB's approach to define its Green Portfolio is based on a number of principles.

- Crédit Agricole CIB believes that climate change mitigation and the transition to a more environmentally friendly economy require financing activities and infrastructures in a wide range of economic sectors beyond renewable energies, and including real estate, transportation, smart grids, waste and water management, etc.
- Crédit Agricole CIB is convinced that pure climate-related performance (e.g. measured by avoided carbon emissions) should not be the only criteria to define the sustainable environmental quality of a green asset: the governance of targeted projects or company, its overall environmental performance beyond carbon and its social responsibility are also very important factors.

## 2. FINANCIAL CONSIDERATIONS

Apart from the elements on the Use of Funds described hereunder, Green Notes have the same financial characteristics as any other Notes issued by Crédit Agricole CIB.

## 3. USE OF FUNDS

Funds raised by Green Notes support Crédit Agricole CIB's Green Portfolio, composed of loans to entities and projects demonstrating both good environmental and social performance, and belonging to a key sector for the transition to a more environmentally-friendly economy. The loans targeted are

either corporate loans granted to pure players that belong to the green sectors defined below or project financing, i.e. loans granted to special purpose entities to support projects belonging to green sectors as defined below.

The loans in the Green Portfolio are selected according to the process described below, among the overall loan portfolio of the bank for which Crédit Agricole CIB has set up dedicated policies and made a number of commitments towards the environment, such as Equator Principles and CSR Sector policies. Details on Equator Principles and CSR Sector Policies are provided in the Appendix of this document.

The dedicated selection process for defining the Green Portfolio includes three social and environmental filters:

- Green Sector
- Environment, Social and Governance (“ESG”) Rating and
- Environmental Rating

### **a. Green Sectors**

In order to be selected for the Green Portfolio, the project or entity to which the loan is granted shall belong to a sector qualified as Green, which means an area selected for its potentially large contribution to climate change mitigation. Credit Agricole CIB has defined these Green sectors based on a compilation of research papers by equity brokers specialized in GreenTech and ESG research and based on the analysis of Green Bond frameworks published by multi-lateral development banks. As of today, Crédit Agricole CIB has defined 6 Green Sectors:

- Green Real Estate,
- Renewable energies, incl. solar, wind and hydro,
- Public mass transportation,
- Waste and water,
- Energy efficiency and
- Sustainable agriculture and forestry.

#### **Green Real Estate**

In 2010 buildings accounted for 32 % of total global final energy use, 19 % of energy-related Green House Gases (“GHG”) emissions (including electricity-related). This energy use and related emissions may double or even potentially triple by mid-century mainly due to the increased access of billions of people in developing countries to adequate housing, electricity, and improved cooking facilities<sup>1</sup>.

Conversely, final energy use could remain constant or even decline by mid-century if today’s cost-effective best practices and technologies would be broadly spread. Recent developments in technology and know-how would enable the construction and retrofit to very low- and zero-energy buildings, and wider usage of energy efficient appliances, lighting, information communication (ICT) and media technologies. It could reduce the increases in electricity use expected due to the proliferation of equipment types used and their increased ownership and use.

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<sup>1</sup> IPCC, 2014: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

Improving energy efficiency in the real estate sector could represent a reduction of 3GtCO<sub>2</sub> emissions per year. To achieve such a reduction more than USD 200bn of yearly investments would be required by 2030.

The contribution of the real estate sector to the goal of keeping global warming below 2°C will depend on various factors including the quality of the design and construction of the building as well as on its utilisation, i.e., the behavior of tenants, inhabitants and users. The connection of buildings to public mass transportation networks also influences the carbon footprint of the real estate assets.

Certifications such as LEED, BREEAM, HQE, BBC, CASBEE, etc. provide tools to assess and rate the environmental performance of buildings on a wide spectrum taking into account climate change aspects but also energy and water management, construction materials, pollution, health and well-being, etc. Green certifications have been widely developed and used by real estate developers and owners, making these certification schemes the simplest and most effective approach to defining a green asset in the real estate sector.

As of today, loans financing assets benefiting from a LEED, BREEAM, HQE certification, or equivalent, or companies which have made the commitment to obtain such certification, or equivalent, for all their new assets can be included in the Green Portfolio, subject to the other selection criteria defined below.

### **Renewable energies**

Loans to renewable energy projects make up an important portion of the Green Portfolio; this reflects Crédit Agricole CIB's strategy in this sector. Indeed, the financing of renewable energy has been an integral part of the Crédit Agricole CIB business strategy since 1997. The bank is one of the global leading players in this sector.

Renewable energies are key in the transition to low carbon economy. The Intergovernmental Panel on Climate Change (IPCC) indicates that the growing development of renewable energies could lead to cumulative greenhouse gas savings equivalent to 220 to 560 gigatons of carbon dioxide (GtCO<sub>2</sub>eq) between 2010 and 2050<sup>2</sup>.

Renewable energies assets in the following sectors are included in the Green Portfolio: solar, wind and hydropower. These three technologies are necessary for a sustainable low carbon power production mix.

- In 2030, solar energy is expected to account for 6% of global power generation capacity. Such growth will require an investment of USD1.3 trillion from 2012-2035.
- Globally wind energy capacity reached 318 GW by the end of 2013 providing more than 2.5% of global electricity consumption. An installed wind power capacity of 2,300GW is targeted by 2050, asking for annual investment of USD150bn<sup>2-3</sup>.
- Hydropower remains the most important renewable energy, accounting for 16% of the total power production. The IEA estimates it could double by 2050, reaching 7000 TWh of annual production, which will require huge investments<sup>4</sup>.

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<sup>2</sup> IPCC, 2014: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

<sup>3</sup> Global Wind Energy Council and Greenpeace International "Wind power to provide a fifth of world's electricity by 2030", 2010

<sup>4</sup> <http://www.iea.org/publications/freepublications/publication/technology-roadmap-hydropower.html>

Transmission and distribution can be included in the green portfolio only if related to defined renewable energy assets. This includes loans to infrastructures and facilities and loans to companies operating in these sectors, subject to the other selection criteria. All renewable energy projects financed by Crédit Agricole CIB follow the Equator Principles and are compliant with the bank CSR sector policies.

Hydropower projects include dam projects with reservoirs, run-of-river and in-stream projects and range from small to large scale. All projects financed by Crédit Agricole CIB follow Crédit Agricole CIB's Hydropower CSR Sector Policy. This sector policy is provided in the Appendix and is available on Crédit Agricole CIB's internet website. These policies encompass important commitments related to the GHG emissions and to the size of the reservoirs.

### **Public mass transportation**

Reducing global transport GHG emissions will be challenging as the continuous growth in passenger and freight activity could outweigh all climate change mitigation measures unless transport-related emissions are decoupled from GDP growth. The transport sector produced 7.0 GtCO<sub>2</sub>eq of direct GHG emissions in 2010 and hence was responsible for approximately 23 % of total energy-related CO<sub>2</sub> emissions (6.7 GtCO<sub>2</sub>). Growth in GHG emissions has continued since then despite more efficient vehicles (road, rail, water craft, and aircraft)<sup>5</sup>.

The increase in passenger mobility supported by mass public transports could be 270 % between 2000 and 2050<sup>6</sup>. In particular, railways will be a key component of a low-carbon mobility: high-speed rail can substitute air travel for short-distance passengers, as well as for most road travel.

Loans to rail infrastructure projects and public mass transportation systems which contribute to reducing the circulation of cars are included in the Green Portfolio. When applicable, some mass transportation infrastructures are also included in the Green Portfolio. They always comply with Equator Principles and follow Crédit Agricole CIB's Transport Infrastructure Sector Policy, where important commitments are made, in particular with respect to biodiversity.

### **Waste and water management**

Waste and water management are key sectors for climate change mitigation.

On the waste management side, existing practices can significantly reduce GHG emissions. A wide range of mature, environmentally-effective technologies are available to both reduce energy consumption and provide public health and environmental protection benefits: landfill gas recovery, improved landfill practices, engineered wastewater management, controlled composting of organic waste, state-of-the-art incineration and expanded sanitation coverage. In addition, waste minimisation, recycling and re-use represent an important and increasing potential for indirect reduction of GHG emissions through the conservation of raw materials, improved energy and resource efficiency and fossil fuel avoidance. The waste management sector could reduce more than 1.5 GtCO<sub>2</sub> per year by improving its energy efficiency. This will require a yearly investment of over USD 9bn by 2030<sup>7</sup>.

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<sup>5</sup> IPCC, 2014: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

<sup>6</sup> European commission, World and European Energy and Environment Transition Outlook 2011

<sup>7</sup> McKinsey, 2010 "Impact of the financial crisis on carbon economics, Version 2.1 of the global greenhouse gas abatement cost curve"

On the water management side, energy efficiency is a major question. Water demand will grow globally in the coming decades, primarily due to population growth and increased affluence. Regional large changes in irrigation and water demand are likely. As a result, current water management practices will probably be inadequate and climate change will negatively impact water supply reliability, flood risk, and aquatic ecosystems<sup>8</sup>. The energy efficient production of drinking water is therefore of paramount importance, which implies the adherence to best practices environmental techniques when financing water related infrastructures.

The Green Portfolio includes mainly (i) water supply, i.e. the industrial production of drinking water from non-potable water, (ii) waste to energy, i.e. the production of energy from waste processing, (iii) waste and water management, which mainly includes sewage collection and treatment. The Green Portfolio aims to include assets which use the most up-to-date available climate-friendly solutions. This choice is made both on a project by project basis and reinforced with the ESG-rating and E-rating sector required for each project's sponsor or borrower in the portfolio, and which are explained below.

### **Energy efficiency**

The improvement of energy efficiency in various sectors (industry, services, transportation, energy, etc.) is generally considered as the most cost-effective way to reduce global greenhouse gas emissions. The most famous examples, taken from the McKinsey Global GHG abatement curve<sup>7</sup>, show that energy efficiency in the lighting industry (switching incandescent to LED), in motor systems and in residential appliances are the most cost-efficient way to reduce GHG emissions. Understandably, energy efficiency has become one of the priority fields in the energy, economic and climate change policies of many countries globally.

As of today, the Green Portfolio does not include any asset classified solely as energy efficiency, but – in the future - it could include loans dedicated to the development of products, technologies and solutions to increase energy efficiency as well as projects implementing such solutions and technologies. This choice would be made both on a project by project basis, with the exclusion of fossil fuel related projects and activities, and reinforced with the ESG-rating and E-rating sector required for each project / borrower in the portfolio, and which are explained below.

### **Sustainable agriculture and forestry**

Agriculture, forestry and other land uses are unique in terms of climate change mitigation potential both by the potential removal of greenhouse gases as well as by the potential reduction of emissions through the management of land and livestock. This sector is responsible for almost a quarter (~10 to 12 GtCO<sub>2</sub>eq per year) of anthropogenic GHG emissions mainly from deforestation and emissions from livestock, soil and nutrient management<sup>9</sup>. In addition, agriculture is frequently central to the livelihoods of many social groups, especially in developing countries. Besides, in addition to food and fiber, lands provide a multitude of ecosystem services. In this sector more than in any other, climate change mitigation is vital to human well-being.

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<sup>8</sup> IPCC, 2014: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

<sup>9</sup> IPCC, 2014: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

As of today, the Green Portfolio does not include any asset in this sector, but – in the future - it could include loans to finance sustainable agricultural and forestry projects. The Green Portfolio would aim to include projects and activities using the most up-to-date climate friendly practices. This choice would be made both on a project by project basis and reinforced with the ESG-rating and E-rating sector required for each project / borrower in the portfolio, and which is explained below.

## **b. ESG rating and Environmental rating**

Before integrating a loan in the Green Portfolio, Crédit Agricole CIB also considers the Environmental, Social and Governance (ESG) performance of the borrowers and projects' sponsors, with a specific focus on their Environmental performance. For that purpose, Crédit Agricole CIB has set up an ESG scoring system defined below, which enable to provide an independent level of insurance on the overall ESG performance and of the environmental performance of the borrowers. This “best in class” approach is equivalent to what has been set up by many assets managers and asset owners in Western Europe.

In practice, each counterparty in Crédit Agricole CIB's loan portfolio is given an ESG absolute score as a function of its relative performance within its sector. Among other elements, this ESG score can include information provided by external ESG rating agencies, i.e., rating agencies specialised in environmental, social and governance (ESG) analysis.

The internal ESG scoring system is currently the following.

- ESG scoring are given on a A to G scale; A being the best ESG scoring and, G the worst.
- This ESG scoring is the result of an equi-weighting of the Z-scores of each loans' counterparty on each dimension: the environmental criterion (the “E” score), the social criterion (the “S” score), the governance criterion (the “G” score) and the overall ESG criterion.
- All these scores are absolute scores on a 0 to 100 scale.

To be eligible for the Green Portfolio, the loan has to be granted to a borrower or to a project sponsor which, in addition to belonging to a Green Sector, shall figure among the best protagonists in its sector, both in terms of its overall ESG performance and more specifically in terms of its environmental performance (“E score”). In practice, only loans granted to borrowers or sponsors with an ESG rating and an Environmental rating higher or equal to D are eligible to the Green Portfolio.

These ESG and Environmental rating filters provide a good level of insurance that the assets and projects in the Green Portfolio are best players in their sector.

## **4. FUNDS MONITORING**

The identification of loans belonging to the Green Portfolio and the monitoring of their amounts has been included in Crédit Agricole CIB's internal loan tracking system. A specific IT development has been necessary for this inclusion, which enables the efficient tracking of the Green Portfolio and its audit.

The application of the described methodology is supervised by a dedicated team, in charge of identifying the loans that qualify for the Green Portfolio. After this identification, the information is



transferred to the Credit Portfolio Management department and uploaded in the loan tracking system of the bank. This identification is done on a quarterly basis. As such, the Green Portfolio is evolving with loans maturing and new loans being disbursed.

The information of Green Notes issuances is transferred on a daily basis to the dedicated team in charge of updating both the Green Portfolio amount and the total amount of the issued Green Notes.

Crédit Agricole CIB is committed to ensure that the amount raised by Green Notes is lower than the amount of the Green Portfolio. For this purpose, the size and the maturity of the Green Portfolio and of the cumulated amount of outstanding Green Notes are monitored and adequate buffers are put in place.

As loans included in the Green Portfolio are already disbursed, investors are assured of the immediate use of the funds and the correspondence between the Green Portfolio and their investments, without delay.

## **5. REPORTING AND VERIFICATION**

Crédit Agricole CIB publishes twice a year a report on the use of funds, with a description of its Green Portfolio. Due to confidentiality commitments to its clients, Crédit Agricole CIB only reports on (i) statistical data on the composition of the Green Portfolio and (ii) anonymous examples of projects and companies belonging of the Green Portfolio, highlighting their environmental benefits.

Crédit Agricole CIB auditors verify, on an annual basis, that the procedures set up by Crédit Agricole CIB are duly applied and comply with the defined methodology.

Since 2010, Crédit Agricole CIB has set up a partnership with the University of Paris-Dauphine with the objective to quantify the level of GHG emissions indirectly induced by banks' financing activity. This pioneering work focused initially on defining a methodological framework, which gave birth to a system that has been in operation since 2012. Using this tool, Crédit Agricole CIB created the first map of greenhouse gas emissions associated with the economic activities financed by the bank. Crédit Agricole CIB will seek to extend the scope of analysis of this innovative methodology in order to be able in the future to report on environmental impacts of the Green Portfolio.

## **6. POTENTIAL EVOLUTIONS**

Crédit Agricole CIB has been a pioneer in the development of the Green Bond market and knows that this market is moving fast both in terms of best practices and investor demand.

As the Green Bond market is still young and should evolve in the coming years, and as products, solutions, and technologies developed to fight climate change should also progress, Crédit Agricole CIB is committed to enhance and improve its Green Notes framework.

Recent commitments made by Crédit Agricole CIB's Chief Executive Officer during the UN Climate Summit further demonstrate Crédit Agricole CIB's willingness to be a leading player in the development of this market.

## **Appendix: Details on Equator Principles and CSR Sector Policies**

### **1. Equator Principles**

Every single loan granted by Crédit Agricole CIB is subject to the overall policies and practices of the bank and, in particular, the Equator Principles. Given Crédit Agricole CIB's leadership in project financing, this preliminary filter is of paramount importance and managed by a dedicated team with the bank.

The Equator Principles (EPs) is a risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risks in projects and is primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making. Specifically, the projects financed must comply with the environmental and social standards of the International Finance Corporation (IFC), an institution of the World Bank Group responsible for transactions with the private sector.

EPs apply globally to all industry sectors and to four financial products 1) project finance advisory services, 2) project finance 3) project-related corporate loans and 4) bridge loans. For a bank, the endorsement of EPs implies therefore the implementation of procedures and standards in internal environmental and social policies. As a result, the bank will not provide project finance or project-related corporate loans if the client does not, or is unable to, comply with EPs.

EPs have greatly increased the attention and focus on social and environmental standards and responsibility, including robust standards for indigenous peoples, labour standards, and consultation with locally affected communities within the Project Finance market. They have also promoted convergence around common environmental and social standards. Multilateral development banks, including the European Bank for Reconstruction & Development, and export credit agencies through the OECD Common Approaches are increasingly drawing on the same standards as the EPs.

Crédit Agricole CIB was the first French bank to sign these EPs when they were launched in 2003. Within a few years, these principles have become a market standard, a benchmark of the best social and environmental practices in project finance. Eighty financial institutions now subscribe to these principles, and compliance with them has become a prerequisite for success in international syndications of the most sizeable deals. This commitment to comply with certain social and environmental requirements is a crucial element of Crédit Agricole Group's corporate responsibility policy. It involves Crédit Agricole CIB's project finance teams on a daily basis, and gives an active role in the decision process to a variety of actors.

The Equator Principles especially require environmental and social due diligences, in particular regarding:

- evaluation of impacts and setting up systems to manage these impacts,
- conservation of biodiversity and sustainable management of natural resources,

- consultation with affected populations, creating a process for managing forced relocations, protection of vulnerable indigenous communities, preservation of cultural heritage and grievance management,
- pollution prevention and control, and
- fundamental principles and rights of employment, health, safety, and security of local communities.

The Equator Principles apply to Crédit Agricole CIB's entire project finance business line, including projects that do not reach the USD 10 million threshold. Every project is classified in one of the three categories defined by the IFC, based on its location and its potential impact on the environment and the local social fabric:

- A for projects with maximum potential negative impact,
- B when the impact is significant but more limited, and can be corrected by remedial measures,
- C when the impact is minimal or nonexistent.

An evaluation of the context is also carried out, covering the country, promoters and any problems encountered in similar projects. The goal is to assess the promoters' ability to manage the identified potential impacts. If there is a need for increased vigilance, the deal is classified for monitoring as sensitive.

Crédit Agricole CIB has noticed a steady improvement in the quality of the projects it has studied, showing that project sponsors have been integrating the principles from an early stage in their projects. Equator Principles have materially improved analysis and management of environmental and social impacts of projects at the global level, yet without leading to an increase in the number of deals turned down by the Equator Banks.

However, Crédit Agricole CIB is aware of the progress that still can and must be achieved. It actively participated in developing rules for governance in cooperation with the Equator Banks and in setting up various working groups. Crédit Agricole CIB was co-lead of the scope working group of the Equator Principles which played a key role for the extension of its scope in 2013 (3<sup>rd</sup> version of the Equator Principles).

## **2. CRS Sector Policies**

Crédit Agricole CIB is fully aware of its own responsibility toward climate change and global social and environmental challenges. Through its loans, the bank contributes to the achievement of citizenship-oriented goals, and in particular combating global warming, protecting biodiversity and respecting human rights.

Therefore, Crédit Agricole CIB has developed and deploys specific CSR Sector Policies for sectors where these issues are the most prevalent: Weapons, Energy, Metals and Mining, Transport, Transport Infrastructures. Additional sector policies will be developed in the coming months to address in particular the construction sector. Obviously, many potential green assets are included in the Energy, Transport and Transport Infrastructures.

Like as the Equator Principles, these CSR Sector Policies are part of the preliminary environmental and social filter for the loans selection of the Green Portfolio.

These CSR Sector Policies can be found at <http://www.ca-cib.com>.

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