Methodology Notes

Impact Indicators -
Green, Social and Sustainability Bonds

October 2020

Caisse des Dépôts
GROUPE

Contents

Introduction

To identify and develop indicators to report on the environmental and social impacts of projects backed by the issues of its green, social or sustainability bonds, Caisse des Dépôts has been assisted by the firm EY. Collection tools were therefore created for each category of asset, in order to calculate and consolidate impact indicators.

Depending on the types of project backed, available information and the editorial choice made for annual reports dedicated to these bonds, not all the indicators presented in this document will be reproduced in full.

1 Green Energy and Heat Generation Infrastructure

Indicator	Calculation Method	Sources
Greenhouse Gas (GHG) emissions avoided	This indicator aims to calculate the GHG emissions avoided through the asset compared to average emissions across the territory for energy generation (on a local, national or regional level). The calculation method depends on two factors: the development stage of the asset (construction or operation) and the type of energy produced (power, heat or co-generation). <u>Development stage:</u> - If the asset is under construction, the GHG emissions avoided are theoretical and are calculated based on estimates given in the project's technical report drafted by an independent consultant (using the generation potential given in the Business Plan presented to the National Commitments Committee (CNE)). - If the asset is in operation, the GHG emissions avoided are calculated based on the asset's actual output over the calendar year, as reported by the operator. <u>Type of energy produced:</u> - For power generating infrastructure, GHG emissions avoided are calculated based on average ratios of direct emissions per MWH consumed, provided by RTE (if the facility is in mainland France) or by the Regional Observatory for Energy and Climate (OREC) (if the facility is in Corsica or overseas France). - For heat generating facilities, GHG emissions avoided per MWH are calculated based on the emission factor of gas groups, as established by RTE.	<u>Electricity:</u> - IEA (*World Energy Outlook, 2017*, tab ""EU_Elec_CO2"" in Annex A). - RTE, consulted in October 2019 - OREC, publication 2019 - OMEGA, p.44 - OER, p.9 <u>Heat:</u> - RTE, consulted in October 2019

	- For cogeneration facilities (combined production), GHG emissions avoided are calculated pro rata to the two previous methods. The asset's GHG emissions avoided are therefore equal to: the asset's production (in real or theoretical MWH) x average emissions (in tCO2e per MWH electric, MWH thermal or a combination of the two). *Note 1: The methodology assumes that heating infrastructure replaces fossil fuel heating systems and not electrical heating systems.* *Note 2: The facilities do not consume fossil fuels but emissions linked to them should be subtracted from the GHG emissions avoided for these calculations (based on emission factors established by IPCC).* *Note 3: Projects corresponding to the construction and renovation of heating networks are not taken into account in this indicator.*	
Jobs supported	This indicator aims to estimate the number of direct jobs supported in France (mainland France and Overseas Departments) by economic activity resulting from the asset, through the manufacture of equipment, construction of infrastructure, and generation and distribution of energy. The calculation method depends on the development stage of the asset (construction or operation). <u>Construction:</u> For facilities under construction, jobs supported are calculated based on the total amount of the project as reported by the operator. ADEME has published a report establishing for each renewable energy technology, a ratio of FTEs per million of Euros relating to green power generation facilities (mainland France and Overseas Departments) and heating and cooling network facilities (mainland France and Corsica). Direct jobs supported relate both to the manufacture of equipment and construction. Jobs supported by the asset are therefore equal to: total project amount (in EUR m) x employment ratio (FTE per EUR m). <u>In operation:</u> - For power, heat or co-generation facilities, once they are in production, jobs supported are calculated based on the asset's actual output over the calendar year, as reported by the operator. For each renewable energy technology, the ADEME report establishes an FTE per MWH produced ratio (mainland France and Overseas Departments). Direct jobs supported relate both to the generation and distribution of energy. Job supported by the asset are therefore equal to: output of the asset (MWH) x employment ratio (FTE per MW).	ADEME (Energy efficiency and renewable energy markets and employment, 2019)

	- For heating and cooling networks, jobs supported are calculated based on the total amount of the project as reported by the operator. ADEME has published a report establishing a ratio of FTEs per million of Euros relating to energy distributed by heating and cooling networks (mainland France and Corsica). Jobs supported by the asset are therefore equal to: total project amount (in EUR m) x employment ratio (FTE per EUR m).	
Households supplied with green electricity - power generation	This indicator aims to estimate the number of households whose electricity consumption is theoretically covered by renewable electricity produced by the asset portfolio. The calculation method depends on the development stage of the asset (construction or operation). <u>Construction:</u> For facilities under construction, the number of households is calculated based on estimated output given in the project's technical report drafted by an independent consultant (using the generation potential given in the Business Plan presented to the National Commitments Committee - CNE) and the average consumption of a household in France, as defined by the French energy regulator (CRE) (mainland France) or the Ministry for the Environment, Energy and the Sea (MEEM) and the National Institute of Statistics and Economic Studies (INSEE) (Overseas Departments excluding Mayotte). <u>In operation:</u> Once the facilities are in production, the number of households is calculated based on the asset's actual output over the calendar year, as reported by the operator.	- *CRE (Observatoire des marchés de détail de l'électricité et du gaz naturel*, Q2 2019, Tables p8 for residential sites) - RTE ("Consommation annuelle finale française d'électricité par typologie de consommateurs en 2018" and "Consommation annuelle finale régionale d'électricité en 2018", consulted in October 2019) - Ministry for the Ecological and Inclusive Transition (*Bilan énergétique de la France pour 2019*) (French energy balance 2019) - INSEE ("2016 population census")
Households supplied with green electricity - heat generation [assets connected to the grid]	This indicator aims to estimate the number of households whose heat consumption is theoretically covered by heat produced by the asset portfolio. The calculation method depends on the development stage of the asset (construction or operation). <u>Construction:</u> For facilities under construction, the number of households is calculated based on estimated output given in the project's technical report drafted by an independent consultant (using the generation potential given in the Business Plan presented to the National Commitments Committee - CNE) and the average consumption of a household in France, as defined by the Ministry for Ecological and Inclusive Transition (MTES) and the National Urban Heating Union (SNCU) for mainland France and Corsica.	- Ministry for the Ecological and Inclusive Transition (*Bilan énergétique de la France pour 2019*) (French energy balance 2019) - SNCU (2018 key figures of heating and cooling networks)

	In operation: Once the facilities are in production, the number of households is calculated based on quantities of heat delivered over the calendar year (i.e. the asset's actual output after deduction of quantities consumed by the operator), as reported by the operator and the average consumption of a household in France, as defined by the MTES and SNCU for mainland France and Corsica.	
Storage capacity	This indicator corresponds to the storage capacity	Reported by the operator
Quantity of energy stored	This indicator corresponds to the quantity of energy stored	

2 Green Real Estate

Indicator	Calculation Method	Sources
Regulatory Net Floor Area (m²)	Regulatory net floor area means in this context the surface area used to calculate compliance with French thermal regulations (generally referred to as SHORN)	Building permit
The building's annual theoretical primary energy consumption in KWH per m² (PEC_t)	This is the target energy consumption for the building once delivered (PEC value). The information is generally calculated by a design office or other certified body to check compliance with French thermal regulations in force.	This information is detailed in the dynamic thermal simulation report attached to the building permit
Kg of CO_2 emitted per m² per year associated with the building's theoretical energy consumption (ECO2_t)	The information is generally calculated by a design office or other certified body to check compliance with French thermal regulations in force.	
Total energy consumption (annual KWHPE)	PEC_t * regulatory net floor area	

Baseline energy consumption in KWHPE/m²/year (PEC_max)	To determine the baseline consumption, a distinction is drawn between the two types of assets in the portfolio: <u>New construction:</u> This is the maximum energy consumption authorised by the RT2012 (PEC Max). The information is generally calculated by a design office or other certified body to check compliance with French thermal regulations in force. For example, for housing, the RT 2012 standard is usually 50 KWHPE/m²; for the service sector, the standard is calculated based on the characteristics of the building. <u>Major Renovation:</u> The baseline consumption to be taken into account is the data before renovation. If it is not available, data from the comprehensive thermal regulations (specific to buildings renovated after 1948) are used as the baseline. If this is not available, the baseline consumption must correspond to the highest baseline value used in energy certifications specific to renovation.	This information is detailed in the dynamic thermal simulation report attached to the building permit
Kg of CO_2 emitted per m² per year associated with baseline energy consumption (RT2012) (ECO2_max)	These are CO_2 emissions associated with the baseline energy consumption (maximum theoretical consumption authorised by regulations, PEC Max). If this information is not explicitly provided, a degraded calculation method is used to obtain an estimate. The same percentage gain in the maximum value authorised by energy consumption regulations is applied to CO_2 emissions. As such, the baseline value for CO_2 emissions is obtained using the following formula: ECO2_max = ECO2_t / (1 - X%) where X represents the percentage gain between the building's theoretical consumption (PEC_t) and the maximum authorised consumption (PEC_max).	
Kg of CO_2 emitted per m² per year associated with energy consumption required by the E+C- certificate (ECO2_max)	To estimate CO_2 emissions in kg per m² per year associated with the energy consumption required by the E+C- certificate, the same percentage gain between the maximum value authorised by the RT2012 and the value required by the E+C- certificate for energy consumption is applied to CO_2 emissions. As such, the baseline value for CO_2 emissions is obtained using the following formula: ECO2E+C- = ECO2RT2012 * 70% for offices.	

	ECO2E+C- = ECO2RT2012 * 90% for housing.	
Improved energy performance percentage	(Theoretical energy consumption of the building in annual KWH of primary energy per m² - Baseline energy consumption in KWHPE/m²/year) / Baseline energy consumption in KWHPE/m²/year	/
Total tonnes of CO_2 emissions avoided	(ECO2_max - ECO2_t) * net floor area / 1,000	/
Number of direct and indirect jobs supported by construction and renovation work	This indicator aims to estimate the number of jobs supported by construction and renovation work. The calculation method is based on a ratio of jobs per million Euros invested in the construction sector, determined on the basis of annual data communicated by Eurostat for the country in which the asset is located. The ratio is applied to the project's construction cost.	Eurostat: NACE database - Workforce by sector and country - Revenue by sector and country http://ec.europa.eu/eurostat

3 Site Decontamination and Remediation

Indicator	Calculation Method	Sources
Number of sites decontaminated by fund	This indicator shows the number of projects (a project being one site to be decontaminated) broken down by fund in which Caisse des Dépôts has invested and whose acquisition has been finalised or is currently under negotiation.	Each project is detailed in the quarterly or half-yearly report submitted by the funds' asset managers.
Area of land to be decontaminated by fund	This indicator is the sum of the areas of land purchased by the fund for decontamination in connection with projects. It is expressed in square metres and calculated in hectares (ha).	
Nature of use of decontaminated sites	This indicator provides a breakdown of areas to be developed by nature of use for each fund. Once the land is decontaminated, it becomes buildable land. These sites have two main types of use: - Housing: long-term residential real-estate projects where sensitivity to contamination risk is therefore greater ("traditional" residential housing, student accommodation, retirement homes, social housing); - Activities: real-estate projects where the risk of exposure is lower, encompassing commercial, industrial and office activities (retail space, industrial and logistics sites, offices, tourism infrastructure, etc.). The fund does not systematically own 100% of the construction portion of the project.	
Number of housing units created	In the case of residential real-estate projects, to be able to give a more concrete representation of Caisse des Dépôts' action, the number of housing units developed is estimated. The "Housing" surface area developed is divided by the average net floor area of collective housing in France (source INSEE). The average net floor area of collective housing has been applied as the housing units developed by the funds are mostly collective rather than individual housing.	INSEE, Housing Conditions in France, 2017 Edition, p.143 (collective housing)

Number of direct and indirect jobs supported	Jobs created by investments in decontamination funds correspond to the sum of the following: 1) <u>Jobs created directly by the fund (project management personnel)</u> According to the Ginkgo fund, approximately 10 people are needed to manage the fund, and this assumption has been confirmed with the Brownfields fund. 2) <u>Jobs created by companies hired for construction work once the site has been decontaminated</u>: A ratio of jobs per m² based on built surface areas is applied. Assumptions: For France, the ratio is obtained based on data from the French Building Federation. Assets located outside France are in Belgium where the ratios are considered comparable. 3) <u>Jobs created by companies hired for demolition and asbestos removal work:</u> A ratio of jobs per million of Euros spent in the sector is applied. Assumption: For France, the ratio is obtained based on data from national statistics (INSEE). Assets located outside France are in Belgium where the ratios are considered comparable.	- *Fédération Française du Bâtiment* (French Building Federation) - INSEE, ESANE 2019 database on 2017 figures
CO_2 emissions avoided by changing land use	Forest land, farm land and grassland (greenfields) stock carbon. If their use changes, for example by urbanisation of farm land, afforestation or deforestation, the carbon flux is modified and the change of land use results in net CO_2 emissions into the atmosphere. Brownfield remediation avoids urban sprawl and greenfield soil artificialisation, thereby avoiding discharges of CO_2 into the atmosphere.	ADEME Carbon database, consulted in November 2019.

4 Transport and Sustainable Mobility

Indicator	Method	Sources
Number of alternative refuelling stations	This indicator aims to measure the number of vehicle charging stations made available to users (electric and hydrogen technologies; excluding gas). Charging stations on motorways are distinguished from home stations, and those in urban areas are distinguished from charging stations in rural parts. The provision of charging stations in places serving an optimal number of users and complying with EU guidelines (1 station for 10 vehicles) could also be a project assessment criterion. Charging speed: fast (between 1 hour and 30 minutes) and ultra-fast (10 minutes) is also a factor to be taken into account.	Reported by the project leader
Number of direct jobs supported during construction - inland waterway or rail infrastructure	<u>Definition:</u> These jobs relate to the infrastructure construction and renovation phases. Depending on the type of work, the adequate job / €M ratio is chosen. <u>Calculation:</u> Number of employees per million of Euros invested (Ratio) x amount invested by CDC <u>Data need for the calculation:</u> The following information is required for the calculation: - average number of employees per million Euros of revenue, by type of work (road, rail, inland waterway or sea); - revenue of the sector; - amount invested by CDC <u>Definitions of sectors:</u> - Work on a maritime or inland waterway site: This group includes structures and work carried out at sea, on rivers or on an inland lake. It includes the building of structures made of natural or non-natural rockfill, stonework, concrete, reinforced concrete, pre-stressed concrete, piles, sheet piles; constructing or regulating waterways, whether or not navigable, such as jetties, pier heads,	

	offshore and onshore lighthouses, beacons, quay walls, wharfs, coastal structures, slipways, launching ways, low-head dams, locks, bridge piers and abutments, protection structures, canal lining. - Railway work: This group includes the laying, replacement and maintenance of railway tracks and their related structures and well as the operating and control equipment for fixed and related structures. - Civil engineering structures and industrial facilities: This group includes: - Non-metal, open air, land-based structures (dams, bridges, metal structure supports, non-metal pylons of suspension bridges, banks, separation structures, urban underground passageways, etc.) - Metal structures built on land or water (fixed or movable bridges, dam shutters, lock gates, lift locks, etc.) - Industrial facility structures (civil engineering of steelworks, power plants, transformer stations, industrial frames of thermal or nuclear power plants, facilities for the metallurgy, chemical or petrochemical industries, industrial or exhibition halls, etc.). <u>Assumptions and limits:</u> - Only direct jobs are taken into account, as indirect jobs are too uncertain to be integrated into the calculation. - Ratios for infrastructure renovation are considered the same as for construction.	
CO_2 emissions avoided - rail freight rolling stock	<u>Definition:</u> CO_2 emissions avoided in tonnes of CO_2 eq represent the difference between the emissions of a railway vehicle or railway vehicle fleet financed and the emissions of a fleet of internal combustion engine road vehicles or inland water vessels. <u>Calculation:</u> The calculation is as follows: Emissions avoided = (emissions from the traffic of the vehicle or vehicle fleet financed - emissions from the traffic of internal combustion engine road vehicles and inland water vessels (for an equivalent distance and weight of goods) / 1,000,000 Where: - Emissions from the traffic of the railway vehicle or railway vehicle fleet financed = aggregated data x weight x distance - Emissions from the traffic of internal combustion engine road vehicles and inland water vessels = 0.1 x emissions of an inland water vessel + 0.9 x emissions of an internal combustion engine road vehicle <u>Data needed for the calculation:</u> The following information is required for the calculation: - Rail freight is 90% replaced by internal combustion engine road freight and 10% replaced by inland water freight (SNCF data); - The type of vehicle financed;	*ADEME, Climat, Air, Energie, 2018* - 100% carriage of goods by road - Inland waterway and coastal carriage of goods - Whole goods train

	- Average CO_2 emissions for road transport in g CO_2eq/t.km - The weight carried (in tonnes), to be obtained from the project leader (period = one year) - The annual distance travelled (in km), to be obtained from the project leader (period = one year) Assumptions and limits: - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase.	
CO_2 emissions avoided - inland waterway freight equipment	Definition: CO_2 emissions avoided in tonnes of CO_2 eq represent the difference between the emissions of an electric inland water vessel or electric inland water fleet financed and the emissions of a fleet of internal combustion engine inland water vessels. Calculation: The calculation is as follows: Emissions avoided = (emissions from the traffic of the inland water vessel or fleet financed - emissions from the traffic of internal combustion engine inland water vessels (for an equivalent distance and weight of goods) / 1,000,000 Where: - Emissions from the traffic of the electric inland water vessel or fleet financed = 0 - Emissions from the traffic of internal combustion engine inland water vessels = aggregated data x weight x distance Data needed for the calculation: The following information is required for the calculation: - Electric inland water freight fully replaces internal combustion engine inland water freight; - The type of vehicles replaced; - The weight carried (in tonnes), to be obtained from the project leader (period = one year) - The annual distance travelled (in km), to be obtained from the project leader (period = one year) Assumptions and limits: - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase. - The modal shift rate is 100% of internal combustion engine inland water vessels.	ADEME, *Climat, Air, Energie, 2018* - 100% carriage of goods by road - Inland waterway and coastal carriage of goods - Whole goods train

CO_2 emissions avoided - light duty vehicle equipment (road)	Definition: CO_2 emissions avoided in tonnes of CO_2 eq represent the difference between the emissions of an electric light duty vehicle or electric light duty vehicle fleet financed and the emissions of a fleet of internal combustion engine light duty vehicles. Calculation: The calculation is as follows: Emissions avoided = (emissions from the traffic of the vehicle or vehicle fleet financed - emissions from the traffic of internal combustion engine vehicles (for an equivalent distance and weight of goods) / 1,000,000 Where: - Emissions from the traffic of the electric light duty vehicle or fleet financed = 0 - Emissions from the traffic of internal combustion engine light duty vehicles = aggregated data x weight x distance Data needed for the calculation: The following information is required for the calculation: - Electric light duty freight fully replaces internal combustion engine light duty freight (road); - The type of vehicles replaced; - The weight carried (in tonnes), to be obtained from the project leader (period = one year) - The annual distance travelled (in km), to be obtained from the project leader (period = one year) Assumptions and limits: - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase. - The modal shift rate is 100% of internal combustion engine light duty vehicles.	*MTES, Information GES des prestations de transport, 2018* - Light duty vehicle
CO_2 emissions avoided - road vehicles for passenger transport - electric buses	Definition: CO_2 emissions avoided represent the difference between the emissions of the electric bus or electric bus fleet financed and the emissions of the internal combustion engine buses replaced. Calculation: The calculation is as follows: - Emissions avoided by financing an electric bus fleet = emissions from the traffic of the electric vehicle or fleet financed - emissions from the traffic of the internal combustion engine vehicle or fleet (for an equivalent number of passengers and kilometres). Where: - Emissions from the traffic of the collective vehicle or fleet (electric and combustion) = aggregated data x distance	ADEME, *Climat, Air, Energie,* 2018 - Urban bus (province) *MTES, Information GES des prestations de transport, 2018* - Electric tubes, trams, buses, cableways *SNCF, Evaluer l'impact carbone des investissements*

	- Emissions from internal combustion engine buses = emissions of an urban bus (city and province) - ADEME data Data needed for the calculation: - The type of vehicle financed - Distance travelled (in km), to be obtained from the project leader (period = one year); - Average emissions of internal combustion engine buses; - Number of passengers, to be obtained from the project leader. Assumptions and limits: - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase. - The modal shift rate is 100% of electric buses. - 1 km travelled by a vehicle financed is equal to 1 km travelled by an internal combustion engine vehicle replaced.	*d'infrastructures ferroviaires*, 2017 - Urban bus (Paris region)
CO_2 emissions avoided - electric collective passenger transport vehicles	Definition: CO_2 emissions avoided represent the difference between the emissions of the electric collective transport vehicle or electric collective transport fleet (tubes, trams, cable cars) financed and the emissions of the individual internal combustion engine vehicles replaced. Calculation: The calculation is as follows: - Emissions avoided by financing an electric collective transport fleet (except buses) = emissions from the traffic of the electric vehicle or fleet financed - emissions from the fleet of individual internal combustion engine vehicles (for an equivalent number of passengers and kilometres). Where: - Emissions from the traffic of the collective vehicle or fleet (electric and combustion) = aggregated data (source ADEME) x distance - Emissions from the individual internal combustion engine vehicles = average emissions of individual vehicles x distance x (number of passengers / average passenger load factor) Data needed for the calculation: - The type of electric collective transport vehicles financed - Distance travelled (in km), to be obtained from the project leader (period = one year). - Average emissions of an individual internal combustion engine car (121g CO_2eq/km - average of ADEME data over the past ten years).	*ADEME, Climat, Air, Energie, 2018* - Urban bus (province) - Internal combustion engine two-wheeled vehicles - Individual internal combustion engine vehicle *MTES, Information GES des prestations de transport, 2018* - Electric tubes, trams, buses, cableways - Cable car (8 seats) in mainland France (excluding Corsica) *SNCF, Evaluer l'impact carbone des investissements* d'infrastructures ferroviaires, 2017 - Urban bus (Paris region)

	- Passenger load factor of an internal combustion engine car = 1.2 (ADEME data). - Number of passengers, to be obtained from the project leader. Assumptions and limits: - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase; - The modal shift rate is 100% of individual internal combustion engine cars.	
CO_2 emissions avoided - rail rolling stock for passenger transport	Definition: CO_2 emissions avoided represent the difference between the emissions of the vehicle or vehicle fleet financed (rail transport excluding regional express trains), and the emissions of the internal combustion engine vehicle or fleet to which the passengers transfer. Calculation: The calculation is as follows: - Emissions avoided by financing a vehicle or vehicle fleet = emissions from the traffic of the vehicle or fleet financed - modal shift rate from the internal combustion engine vehicle x average CO_2 emissions of the internal combustion engine vehicle (for an equivalent number of passengers and kilometres). Where: - Emissions from the traffic of the electric rail vehicle or fleet financed = aggregated data x number of units (number of passengers) x distance - Emissions from the traffic of the internal combustion engine vehicle or fleet = average CO_2 emissions x modal shift rate x number of passengers x distance - Emissions from the individual internal combustion engine vehicles = average emissions of individual vehicles x distance x (number of passengers / average passenger load factor) Data needed for the calculation: - Type of means of transport and energy source used; - Number of passengers carried in the year: to be obtained from the project leader; - Distance travelled (in km): to be obtained from the project leader (period = one year); - Average rate of CO_2 emissions of internal combustion engine vehicles (in g CO_2eq/km); - Modal shift rate between vehicles financed and the various internal combustion engine vehicles (SNCF data) - Average passenger load factor of individual internal combustion engine vehicles (ADEME data). Assumptions and limits: - 1 km travelled by a vehicle financed is equal to 1 km travelled by an internal combustion engine vehicle;	*ADEME, Climat, Air, Energie, 2018* - National Coach - National Aircraft - Regional Aircraft - Regional Coach *MTES, Information GES des prestations de transport, 2018* - Electric regional express train - Non-road diesel regional express train - High-speed train - Mainline train *SNCF, Evaluer l'impact carbone des investissements d'infrastructures ferroviaires, 2017* - 50% Plane, 40% internal combustion engine car and 10% coach - 75% internal combustion engine car, 20% national coach and 5% national aircraft

	- The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase; - Modal shift rates do not necessarily need to be taken into account in the calculation. CDC data calculated according to each project financed can be used.	
CO_2 emissions avoided - passenger transport vehicles - electric taxis	Definition: CO_2 emissions avoided represent the difference between the emissions of the vehicle or vehicle fleet financed (electric taxi), and the emissions of the internal combustion engine taxi car or fleet replaced. Calculation: The calculation is as follows: - Emissions avoided by financing a vehicle or vehicle fleet = (emissions from the traffic of the vehicle or fleet financed - average CO_2 emissions of the internal combustion engine vehicle (for an equivalent distance)) * number of taxis financed. Where: - Emissions from the traffic of the electric taxi car or electric taxi fleet financed = 0 x annual distance travelled x number of vehicles financed - Emissions from the traffic of the internal combustion engine taxi car or fleet = average CO_2 emissions x distance Data needed for the calculation: - Average distance travelled per year (in km); - Average rate of CO_2 emissions of internal combustion engine taxis (in g CO_2eq/km); - Number of vehicles financed: CDC data. Assumptions and limits: - 1 km travelled by a vehicle financed is equal to 1 km travelled by an internal combustion engine vehicle replaced. - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase. - The modal shift rate is 100% of internal combustion engine taxis.	*ADEME, évolution du taux moyen d'émissions de CO2 en France :* - Internal combustion engine taxi
CO_2 emissions avoided - passenger transport vehicles - electric	Definition: CO_2 emissions avoided represent the difference between the emissions of the vehicle or vehicle fleet financed (electric regional express train (TER)), and the emissions of the internal combustion engine TER vehicle or fleet replaced.	*ADEME, Climat, Air, Energie, 2018* - National Coach - National Aircraft - Regional Aircraft - Regional Coach

regional express train	Calculation: The calculation is as follows: - Emissions avoided by financing a vehicle or vehicle fleet = emissions from the traffic of the vehicle or fleet financed - average CO_2 emissions of the internal combustion engine vehicle (for an equivalent distance in kilometres). Where: - Emissions from the traffic of the electric TER vehicle or fleet financed = average CO_2 emissions x annual distance travelled x number of passengers - Emissions from the traffic of the internal combustion engine TER vehicle or fleet = average CO_2 emissions x distance x number of passengers Data needed for the calculation: - Average rate of CO_2 emissions of electric TER (in g CO_2eq/km); - Average rate of CO_2 emissions of internal combustion engine TER (in g CO_2eq/km); - Annual distance travelled: to be obtained from the project leader - Number of passengers carried per year: to be obtained from the project leader Assumptions and limits: - 1 km travelled by a vehicle financed is equal to 1 km travelled by an internal combustion engine vehicle replaced. - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase. - The modal shift rate is 100% of internal combustion engine TER trains.	*MTES, Information GES des prestations de transport, 2018* - Electric regional express train - Non-road diesel regional express train - High-speed train - Mainline train *SNCF, Evaluer l'impact carbone des investissements d'infrastructures ferroviaires, 2017* - 50% Plane, 40% internal combustion engine car and 10% coach - 75% internal combustion engine car, 20% national coach and 5% national aircraft
CO_2 emissions avoided - passenger transport - electric moped	Definition: CO_2 emissions avoided represent the difference between the emissions of the vehicle or vehicle fleet financed (electric mopeds), and the emissions of the internal combustion engine moped or moped fleet replaced. Calculation: The calculation is as follows: - Emissions avoided by financing a vehicle or vehicle fleet = emissions from the traffic of the vehicle or fleet financed - average CO2 emissions of the internal combustion engine vehicle (for an equivalent distance in kilometres). Where: - Emissions from the traffic of the electric moped or electric moped fleet financed = 0 x annual distance travelled x number of passengers	*ADEME, Climat, Air, Energie, 2018* - Internal combustion engine two-wheeled vehicles

	- Emissions from the traffic of the internal combustion engine moped or moped fleet = average CO_2 emissions x distance x number of passengers <u>Data needed for the calculation:</u> - Average CO_2 emissions of internal combustion engine mopeds (in g CO_2eq/km); - Annual distance travelled: to be obtained from the project leader - Number of passengers carried per year: to be obtained from the project leader <u>Assumptions and limits:</u> - The average emission rate of an electric moped is considered equal to 0 - 1 km travelled by a vehicle financed is equal to 1 km travelled by an internal combustion engine vehicle replaced. - The emission factors used in this calculation do not take into account the entire product life cycle and do not, therefore, include emissions due to the vehicle's manufacturing and end of life. They are limited to the vehicle operating phase and the combustion or power it requires. This is not regarded as problematic as the majority of CO_2 emissions are due to the vehicle's operating phase. - The modal shift rate is 100% of internal combustion engine mopeds.	
Number of seats in clean vehicles	<u>Definition:</u> This represents the number of seats in a clean vehicle or fleet of clean vehicles (electric collective road transport, electric rail transport, inland waterway transport). <u>Calculation:</u> Number of seats per vehicle (depends on the type of vehicle financed) x number of vehicles financed <u>Data needed for the calculation:</u> - The number of vehicles financed is obtained from the project leader - The number of seats per vehicle can also be provided by the project leader. However: - The average number of seats in a bus = 90 (for RATP buses - source Observatoire de la Mobilité Ile de France) - The average number of seats in a tube = 560 (average of the total number of seats on Paris metro lines - source Observatoire de la Mobilité Ile de France) - The average number of seats in a coach = 50 (Arafer data) - The average number of seats in railway cars is presented in the list below (SNCF data) - The average number of seats in a TER train = 350 (Arafer data)	/

5 Digital Infrastructure

Indicator	Method	Sources
Total number of sockets to be connected	This indicator represents the total number of subscriber sockets in households or professional premises that can be connected to the fibre optic network in the area concerned.	Reported by the operator
Number of connectable sockets	This indicator represents the number of subscriber sockets in households or professional premises connected to the shared access point and which can therefore be connected to fibre optic broadband after fitting an optical network termination point inside the homes or premises.	
Number of sockets connected	This indicator represents the number of subscriber sockets in households or professional premises that have been connected to the fibre optic network after fitting an optical network termination point inside the premises.	
Coverage rate of the public initiative area	This indicator is the ratio between the number of connectable sockets and the total number of sockets to be connected in the public initiative area.	/
Ratio of sockets connected	This indicator is the ratio between the number of sockets connected and the number of connectable sockets.	/
Number of direct jobs supported during construction	This indicator aims to estimate the number of direct jobs supported in France by economic activity generated by the construction of fibre optic networks. For infrastructure under construction, jobs supported are calculated based on the number of connectable sockets as reported by the operator. EDEC (Engagement Développement Emplois Compétences - Undertaking for Employment and Skills Development) has published a report establishing the number of FTEs relating to the installation of horizontal networks (portion of the network in public space) and vertical networks (portion of the network in private space, Fibre to the Home). The overview published by the French electronic communications and postal distribution regulatory authority ACERP, establishes the number of connectable housing units in France. Direct jobs supported concern both preparatory work (design offices, public works, negotiations with	- *ACERP (Panorama - Les chiffres-clés dans le secteur des télécoms, 2019)* - *EDEC (Emplois, compétences et formation liés au déploiement de la fibre optique, 2018)*

	associations of co-owners, etc.) and network installation (connection, welding, fibre drawing, etc.). Jobs supported by the asset are therefore equal to: number of connectable sockets x employment ratio (FTE per connectable socket).	
Number of direct and indirect jobs supported during operation	This indicator aims to estimate the number of direct jobs supported in France by economic activity generated by the operation of fibre optic networks. For infrastructure in operation, jobs supported are calculated based on the number of connectable sockets as reported by the operator. EDEC (Engagement Développement Emplois Compétences - Undertaking for Employment and Skills Development) has published a report establishing the number of FTEs relating to the operation of horizontal networks (portion of the network in public space) and vertical networks (portion of the network in private space, Fibre to the Home). The overview published by the French electronic communications and postal distribution regulatory authority ACERP, establishes the number of connectable housing units in France. Direct jobs supported relate both to the operation and maintenance of networks. Jobs supported by the asset are therefore equal to: number of connectable sockets x employment ratio (FTE per connectable socket).	- *ACERP (Panorama - Les chiffres-clés dans le secteur des télécoms, 2019)* - *EDEC (Emplois, compétences et formation liés au déploiement de la fibre optique, 2018)*
Number of beneficiaries of training courses created	This indicator aims to measure the number of beneficiaries of training courses created in the structures financed.	Reported by the project leader
Number of hours of training	This indicator aims to measure the number of hours of training given to beneficiaries of training courses created in the structures financed.	Reported by the project leader
Total annual power consumption of the data centre (KWH)	This data is used to calculate the Power Usage Effectiveness (PUE).	Invoices
Annual High Quality (HQ) power consumption of hardware (kWh)	This data is used to calculate the Power Usage Effectiveness (PUE).	Invoices
Average PUE in France	PUE represents total power consumed by a data centre divided by the energy used by the centre's hardware. This indicator reflects the energy efficiency of a data centre. Therefore, it cannot be less than 1.	*ENR'CERT (L'efficacité énergétique dans les data centers, 2016)*
Annual consumption of green electricity from the grid (kWh)	This data is used to calculate the REF.	Guarantees of origin and invoices to be provided to prove annual figures.
Annual consumption	This data is used to calculate the REF.	/

of green electricity from on-site renewable energy infrastructure (KWH)		
Renewable Energy Factor (REF)	This indicator specifies the share of green electricity in the data centre's total power consumption.	/
Carbon Usage Effectiveness (CUE)	Carbon Usage Effectiveness (CUE) is an indicator that measures the GHG emitted by a data centre. It is calculated by dividing eqCO_2 emissions linked to the power consumption of the data centre by the total power consumed by hardware. CUE is measured in eq$C0_2$/kWh. A value of 0 indicates that the data centre's operations do not emit any greenhouse gases.	/

6 Education and Employment Integration

Indicator	Method	Sources
Number of individuals trained/assisted	This indicator aims to count the number of beneficiaries of education and employment integration programmes financed. The portion of women and men trained/assisted is collected from the project leader.	Collected directly from the impact report or from the project leader.
Rate of Positive Outcomes	This indicator aims to measure the portion of programme beneficiaries who have a positive outcome, i.e. who leave the programme with a job or training course. It corresponds to the sum of beneficiaries leaving with a lasting job, beneficiaries leaving with a transitional job and beneficiaries joining a skills training course, compared to the total number of people assisted. The following definitions apply: - lasting job: permanent contract, fixed-term contract of more than 6 months, temping assignment of more than 6 months - transitional job: fixed-term contract or temping assignment of more than 6 months - skills training: training course leading to a professional qualification, diploma or new skills The women/men ratio for positive outcomes must be provided by the project leader.	
Number of direct jobs supported, including employees on employment integration schemes	This indicator aims to measure the number of direct jobs supported in France by the training organisations. <u>Number of direct jobs supported:</u> This indicator corresponds to the number of individuals employed by the structure. <u>Number of employees on employment integration schemes:</u> This indicator corresponds to the number of employees employed by the structure on employment integration schemes.	
Number of hours of training	This indicator aims to measure the number of hours of training given to beneficiaries by the training organisations.	

7 Social and Inclusive Economy

Indicator	Method	Sources
Number of beneficiaries	This indicator aims to count the number of beneficiaries of the projects supported. It corresponds to the sum of beneficiaries reported in the MESIS report: - number of citizens informed of responsible dietary practices - number of households informed by the action of Dr Watt - number of individuals trained in microfinance & support for entrepreneurship - number of beneficiaries of a training course or assistance finding employment - number of individuals earning a qualification by accreditation of prior learning - number of autistic children benefiting from adapted learning applications - number of people housed in emergency shelters	Social impact measurement and monitoring (MESIS) report
Rate of Positive Outcomes	This indicator aims to measure the portion of programme beneficiaries who have a positive outcome, i.e. who leave the programme with a job or training course. It corresponds to the sum of beneficiaries leaving with a lasting job, beneficiaries leaving with a transitional job and beneficiaries joining a skills training course, compared to the total number of people assisted. The following definitions apply: - lasting job: permanent contract, fixed-term contract of more than 6 months, temping assignment of more than 6 months - transitional job: fixed-term contract or temping assignment of more than 6 months - skills training: training course leading to a professional qualification, diploma or new skills The women/men ratio for positive outcomes must be provided by the project leader.	Reported by the project leader
Number of jobs supported	This indicator aims to estimate the number of direct jobs supported by economic activity generated by the asset. It	Social impact measurement and

	corresponds to the number of individuals employed by the structures financed.	monitoring (MESIS) report
Number of structures/entrepreneurial projects supported	This indicator aims to measure the number of structures and projects supported. It corresponds to the sum of supported projects reported in the MESIS report: - number of entrepreneurial projects supported via third places and coworking facilities - number of entrepreneurial projects supported via management consulting and support missions	Social impact measurement and monitoring (MESIS) report
CO_2 emissions avoided (teqCO_2)	This indicator corresponds to emissions avoided by the generation of green electricity (cumulative)	Reported by the project leader

8 Social Housing

Indicator	Method	Sources
Number of beneficiaries	This indicator aims to count the number of beneficiaries of social housing financed.	Solifap Report
Number of new places created per year via the acquisition of new residential buildings or the renovation of existing buildings	This indicator aims to count the number of places created each year by the acquisition of new residential buildings or the renovation of existing buildings.	
Savings on energy bills after renovation	This indicator aims to measure the improvement in the energy performance of housing units in order to reduce the contribution payable by households.	
Number of direct jobs supported	This indicator aims to estimate the number of direct jobs supported by economic activity generated by the supported project. It corresponds to the number individuals employed by the structure.	
Number of direct jobs supported during renovation	This indicator aims to estimate the number of direct jobs supported in France by the renovation of social housing. Jobs supported are calculated based on the total annual costs of work undertaken as reported by the operator. The French Building Federation has published a report establishing a ratio of FTEs per million Euros relating to the improvement of buildings in France. Jobs supported by the asset are therefore equal to: total investments (in EUR m) x employment ratio (FTE per EUR m).	French Building Federation

9 Health and Medical-Social Sector

Indicator[1]	Method	Sources
Number of medical practices accommodated in health centres built/renovated	This indicator aims to measure the number of medical practices, with a view to reducing medical deserts.	Reported to the project leaders
Number of beneficiaries of senior serviced residences	This indicator aims to measure the number of beneficiaries housed in the senior serviced residences financed.	Reported to the project leaders

[1] As medical-social assets are eligible for the three green, social and sustainability bonds, environmental indicators are currently being studied.

Ensemble, faisons grandir la France

Caisse des Dépôts
GROUPE

Caisse des Dépôts
caissedesdepots.fr/en