

CITY OF PARIS

Projects funded by the Climate Bond issued on 10th November 2015







SUMMARY OF ANNUAL REPORT 2015

PRESENTATION OF THE CLIMATE BOND	3
SYNTHESIS OF PROJECTS FUNDED	5
REPORTING ON PROJECTS FUNDED IN 2015 Commitments and goals of the reporting / Transverse indicators / Key figures for 2015	6
1. Reducing greenhouse gas emissions Public transport / Non-motorised traffic / Electric vehicles	9
2. Reducing energy consumption Sustainable buildings / High-performance public lighting	17
3. Producing renewable or reusable energy	21
4. Strategy for territorial adaptation Creating green spaces / Planting trees	22

The annual opinion review provided by the Vigeo Eiris agency can also be found in the appendix to the 2015 Reporting.

This document falls within the framework of the environmental and socially responsible bond issue carried out by City of Paris in 2015 and is exclusively for the use of investors.

This document may not be reproduced, in part or in whole, without express written consent from City of Paris.

Annual Report on the Climate Bond for City of Paris

2

PRESENTATION OF THE PARIS CLIMATE BOND

City of Paris has long been committed to the fight against climate change, both through its actions led on the ground in Paris and in its administrative activities.

In 2005, Paris was already aware of the environmental and citizen stakes, and from 2005 resolved to develop its territorial Climate Plan. The Plan was adopted in 2007 and updated in 2012 in consultation with the people of Paris to take social, economic, technical, environmental and legal changes into consideration.

The <u>Plan Climat Énergie de Paris</u> (Paris Climate and Energy Action Plan) specifically aims to reduce greenhouse gas emissions in the Paris area and from its activities by 75% in 2050 in comparison with 2004. In order to reach this goal, ambitious intermediate objectives which extend well beyond the European and national obligations stemming from the *Grenelle de l'Environnement*, have been set:

- To reduce greenhouse gas emissions by 25 % by 2020 (compared with 2004);
- To reduce energy consumption by 25 % by 2020 (compared with 2004);
- To have 25 % renewable and reusable energy at its disposal in its energy consumption in 2020.

Since 2015, a fourth goal has been adopted, to provide better protection to the people of Paris and to strengthen the city's resilience:

• To anticipate and adapt the territory to climate change and dwindling resources.

A commitment confirmed by an encouraging 10-year experience and external evaluations

The <u>2004-2014 Results</u>, which summarize the actions undertaken by the city in the Paris Climate and Energy Plan for adaptation to climate change, demonstrate the following:

- A reduction of around 10 % in greenhouse gas emissions;
- A 15 % reduction in its use of energy;
- A 15 % share of renewable and reusable energy in its energy consumption.

Paris is consistently developing stronger public policies which combine solidarity, economic development, environmental conservation, biodiversity and circular economy.

According to the assessment of the agency VIGEO Rating, Paris has the best "rating" in the local authority sector with a rate of 64/100 in 2014 (against a sectoral average of 43/100) thanks to a performance rated as « advanced » over all the fields evaluated by the agency, and this has remained stable since the last review. In addition to this, Paris has received "Positive Energy Territory" approval from the Ministry of Ecology, Sustainable Development and Energy.

2015, the year of increased Parisian mobilisation in the fight against climate change...

City of Paris was prominent in 2015 when it hosted the 21st international climate conference (COP21) which saw the signing of the historic agreement adopted on 12th December 2015, as well as by the many actions carried out on a territorial scale (adoption of plans for combating air pollution by road transport, the strategy of sustainable innovation for Paris, the plan for sustainable food in municipal catering, and the Paris climate change adaptation strategy). City of Paris has also set up a number of partnerships (declaration of 26th March 2015 on the public procurement stakes as a lever for action in taking concrete steps to fight against climate change and the



World Mayors' and local representatives Summit on 4th December 2015). 31 major firms established on Parisian territories have signed the *Paris Action Climat* charter and are committed to reducing their carbon footprint by 2020.

... and the year of the Climate Bond: the first issue of a green-labelled and socially responsible bond by City of Paris

With the organisation of COP21 and the World Mayors' and local representatives Summit at the end of 2015, Paris has enjoyed particularly beneficial international coverage. The issuance of the Climate Bond in November 2015 falls within the context of supporting exemplary policies relative to sustainable development. Paris has thus asserted its continued commitment to the fight against climate change by choosing to specifically allocate the funds raised to the financing of projects of noteworthy climate benefit.

Method: To carry out this green and socially responsible issue, City of Paris asked for an extra-financial rating by the Vigeo Eiris agency in order to have its performances with regards to sustainable development evaluated by an independent body. This rating completes those carried out by Fitch and Standard & Poor's agencies on the City, at the highest level possible for a French local community (just as with its Euro Medium Term Note (EMTN) programme set up in 2004).

Vigeo Eiris also assisted the City in structuring its issue by certifying, from the start of the project selection procedure, their environmental and social goals and the responsible management of the bond issue. To do this, Vigeo Eiris used its ESG (Environment, Social and Governance) evaluation method and the recommendations of the Green Bond Principles (GBP, 2015 version) which aim at defining guidelines to encourage transparency, the dissemination of information, and integrity in the development of this contract. At the end of this process, the City was able to report to investors on the legitimacy of its approach by publishing the "Second Party opinion" on the subject of the Climate Bond established by Vigeo Eiris, which awarded a favourable verdict, matched with the best level of assurance ("reasonable assurance"):

- On the environmental and social responsibility regarding the City ("advanced" level of the issuer);
- On the relevance of the projects targeted by the issue in terms of contribution to sustainable development;
- On the framework of the issue in line with the recommendations of the Green Bond Principles.

The methodology of each of the four Green Bond Principles was followed:

- "<u>Use of proceeds</u>" (funding of projects which contribute to climate change mitigation and adaptation): To valorise the diversity of its actions regarding the environment, the City has chosen to allocate funding to projects whose socially responsible environmental approaches cover all the goals listed on its Climate-Energy Plan.
- The project evaluation and selection process, coordinated by the Direction des Finances et des Achats DFA (Finance and Procurement Department) was implicit in all operational management. Meetings were first organised on the substance of the projects in the 2014-2020 Plan d'investissement de la mandature -PIM [Mandate Investment Plan]: accurate description, forecasted scheduling, costing and budgeting, available "monitoring" methods. The list is subsequently fine-tuned according to the data collected and their adequacy with "Use of proceeds": validation on each project of the substantial and measurable benefits this was effected by the Agence d'écologie urbaine (AEU) [Urban Ecology Agency], which is part of the Direction de l'environnement et des espaces verts DEVE (Green Spaces and Environment Department) and whose agents are accredited for carbon evaluations, and of the results of the Vigeo Eiris evaluation on the scope of the defined issue.
- "Management of proceeds": In view of the monitoring and reporting of the projects, a collaborative approach between the *Direction des Finances et des Achats DFA* [Finance and Procurement Department] and the directorates concerned was implemented. Thus, the budgetary contacts in the operational departments were notified so that the financing of the selected projects would be under close scrutiny, specifically to avoid any form of "double funding" of a project. The allocation of funds to the selected projects is then confirmed, using the City's accounting tool (*Alizé*) which associated any expenses with the authorisation of the programme concerned through the legal commitments attached to it and, on a second level, is monitored by the *Direction régionale des finances publiques DRFiP* (Regional Directorate of Public Finance) which checks that the payment they are being requested to make actually corresponds to an expenditure properly entered into, settled and scheduled.

This annual report ("<u>Reporting</u>") aims at synthesizing and confirming all the commitments that the City has made within the scope of the issue of its Climate Bond.

MAIRIE DE PARIS 🥥

SYNTHESIS OF PROJECTS FUNDED

		% of the Bond	2015 Investment
TOTAL:	€300m		€110m
Category 1. Reducing greenhouse gas emissions	€120m	40%	€38.5m
Public transport			
Tram: T3 - Chapelle-Asnières Extension	€50m		€35.6m
Paris Railway stations Ring Road (Surface transport)	€24m		-
Non-motorised traffic: Cycle paths	€40m		€1.9m
Electric vehicles: Installation of Bélib' charging stations	€6m		€1.0m
Category 2. Reducing energy consumption	€115m	38%	€70.7m
Sustainable social housing (HEQ construction, thermal insulation)	€55m		€45.7m
Energy performance contract concerning public lighting	€60m		€25.0m
Category 3. Producing renewable and waste energy	€5m	2%	-
Category 4. Paris climate change adaptation strategy	€60m	20%	€0.8m
category 4. Paris climate change adaptation strategy	coom	20/0	60.011
30 new hectares of green spaces	€45m		-
Programmes for planting 20,000 trees	€15m		€0.8m

2015

5

REPORTING ON THE FUNDED PROJECTS

A reminder of the commitments and targets of the reporting

In order to ensure transparency, and as evaluated independently by Vigeo Eiris, City of Paris has committed to communicating on a yearly basis on the selected projects:

- Allocation and progression indicators (work progress and investments made);
- Their climate benefits;
- The ESG performance indicators.

The reporting is carried out at an operational (project) level and/or at a global (Bond) level for the transverse indicators which are often linked to the internal organisation of the community, particularly where responsible governance criteria are concerned. It will subsequently be necessary to consider these indicators as being common to all the projects.

Synthesis of the reporting 2015 relative to the projects funded by the Climate Bond

As the Climate Bond was issued on November 2015, this first annual reporting only pertains to the last quarter 2015. Where projects are not yet in progress, the indicators may only be partially mentioned or remain to be defined. Therefore, this reporting aims mainly at confirming the allocation of the funds raised and their distribution. It also makes it possible to present the projects more accurately along with their state of progress and, where possible, the environmental benefits evaluated and quantified by the *Agence d'Écologie Urbaine - AEU* (Urban Ecology Agency accredited for carbon evaluation) using an explicit calculation method.

To sum up:

- €110m have been invested of the €300m of the Climate Bond These data were confirmed by the IT monitoring of the community accounts (Alizé), in connection with the Direction régionale des Finances Publiques – DRFiP (Regional Directorate of Public Finance)
- 10,550 t.CO₂/year have been avoided, this figure increasing to 17,823 t.CO₂/year per carbon equivalent
- 44,071 MWh/year have been saved
- Close to 700 trees have been newly planted
- 7,213 hours of integration work out of the 41,665 planned in the contracts have been validated

Responsible governance indicators on a general level

Social responsibility towards workers & respect for human rights	 Internally speaking, in addition to the already protective statutes of the civil service, human resources policies implemented in 2014-2015 in the City of Paris specifically integrated the following principles: Respect for "residual" private life (amendments to the charter for the use of computer resources taking this tolerance into consideration); Compliance with the French Data Protection Act to protect the personal data of users in the tele-services offered by the City; Fight against all forms of discrimination (generational, gender equality, people with disabilities, etc.); Reception facilities and an anonymous and personalized support for all
	 Reception facilities and an anonymous and personalized support for all victims of sexual harassment.

Annual Report on the Climate Bond for City of Paris



Social responsibility towards workers & respect for Human Rights **Regarding its public contracts**: Tender forms (*DCE* -Tender File) commit the firms winning the tenders to the fight against illegal labour, the obligation to employ disabled or disadvantaged workers, gender equality, and a healthy social situation, in line with the French Public Procurement Code (CMP). For all its procurement City of Paris considers integrating sustainable development targets into its Specifications and in the contract award procedures, in the form of clauses relative to performance conditions and/or in the form of standards by which the proposals are judged (see *Responsible Procurement* indicator). On 31 December 2015, analysis of the 2,788 questionnaires concluded that over 50 % of the firms had declared their commitment to an approach based on improvement in terms of diversity and to have formalized this.

In cases where the successful tenderers and/or their subcontractors have made incorrect declarations or breached their commitments, the administration uses its general powers of control and management of the performance of the contract to remind the firm of its obligations (with a view to correcting them) or to fine them and even terminate the contract according to the clauses systematically provided in the specifications. No such case has ever occurred on any of the projects funded by the "Climate Bond".

Responsible procurementIn pursuance of the Act of 31 July 2014 on social and solidarity economy and the Act of 17 August 2015 on ecological transition for green growth, in 2015 the city prepared the *Schéma Parisien de la Commande Publique Responsable* (Responsible Public Ordering Plan) adopted in February 2016. In order to encourage socially and ecologically responsible public procurement, this plan makes circular economy its cornerstone and sets ambitious targets **regarding the environment**: reflection on the development of a carbon footprint indicator, the valorisation of reemployment and recycling, the fight against planned obsolescence, economy of use and functionality, minimising grey energy, etc.

The guide to environmental procurement for suppliers is regularly updated to integrate a variety of issues such as, in 2014, the prevention of associated waste (packaging, procurement of paper, cardboard goods and books, computer and telephone equipment).

Thus, in 2015, at City of Paris level:

- 54 % of the contracts awarded contain a clause and/or a criterion for judging environmentally related proposals: eco-label clauses, "clean delivery" (vehicles to Euro 5 or 6/Euro V or VI standard), "order optimisation", "ecopackaging", eco-materials, etc.
- 14 % of the contracts awarded have a biodiversity label or contain a "chantier faible nuisance" (low pollution site) clause (noise, dust, water and electricity consumption and other forms of pollution which impact biodiversity).

In order to work towards the return to employment of the long-term unemployed, the *Schéma Parisien de la Commande Publique Responsable* also sets ambitious targets based on the work of identifying contracts which are potentially supportive of social integration (9 % of the contracts awarded or whose performance began in 2015 included a **social clause**) and on the mappings of the protected and adapted sector and Structures for Integration through Economic Activity finalized in 2015.



Responsible procurement

Good business practices & Ethics

Facilitating access to public procurement for SME is also a major focus (in 2015 the number of contracts allocated to SMEs - excluding the part subcontracted out to SMEs - reached 41% of expenditure) which falls within this socially responsible rationale:

- Frequent dialogue with firms: Briefings on different topics (8 in 2015), Bto-B (business to business) meetings, "Sourcings" by procurement departments to understand the economic fabric and identify avenues for innovations, "procurement" contact made possible by registration through a single registration facility (331 requests in 2015);
- More straightforward processes and more information available, displayed within the rules for tender criteria, sub-criteria and weightings, reasoned responses for unsuccessful candidates to help them to improve their proposals during subsequent tenders, lowering of the requested minimum turnover, etc.
- Allotting of tenders

Thanks in particular to a reorganisation of the departments in charge of payments, the **average payment time of suppliers** for City of Paris was **20 calendar days in 2015** (statutory time limit: 30 days) whatever the volume of invoices to be paid (around 500 000/year). City of Paris received the "*Prix Spécial du Jury des délais de paiement, toutes catégories confondues*" on 19th June 2015 in Bercy.

For additional transparency suppliers have been able to follow their payments via the **supplier portal** since September 2014.

In addition to this, the *Sous-direction des Achats – SDA* (Procurement Division) is implementing an ethical guide entitled *Charte de déontologie Achats* (Charter of Procurement Ethics) in order to comply with the French Public Procurement Code.

- Therefore, concerning procurement in 2015, only 10 actions were brought against City of Paris out of 779 contracts awarded. Of these, 7 were won by the City and 3 are pending judgement. None of the actions concerned projects funded by the Climate Bond.
- Within the framework of the prevention of conflict of interest, all agents taking part in a public procurement operation (public contract, delegation of a public service or concession, partnership contract, etc.) must be careful not to find themselves in a position of conflict of interest; if this were to be the case, they would be obliged to report this immediately. Failing this, this breach may be subject to disciplinary action.

All the members of the selected firms and new supervisory staff are notified of the procurement ethics and the various violations in this field (corruption, insider influence, unlawful taking of interest and favouritism). Compliance with the **ethical charter for the city's elected officials**, which was acclaimed by the *Haute Autorité pour la Transparence de la Vie Publique* – HATVP (High Authority for Transparency in Public Life) which pronounced in the autumn that it was "in favour of the practice of such codes developing in all public communities", is entrusted to an ethics commission. This commission is made up of five independent persons, and acts in an advisory capacity. Two procedures, which did not involve projects funded by the Climate Bond, were in progress in 2015:

- An accusation of "favouritism" in a City of Paris contract dating back to 2005 was finally recognized in January 2016 to be unfounded by the Court of Appeal in Lyon
- Alleged de facto management by a former elected representative of Paris, was declared by the *Chambre régionale des comptes* in the first instance (October 2016) to be non-applicable.

1. Reducing greenhouse gas emissions

Public transport: T3 tram line - Chapelle-Asnières Extension

http://www.tramway.paris.f

2015

Project description The extension of the T3 Tram line between Porte de la Chapelle and Porte d'Asnières follows the northern boulevards des Maréchaux (Ney, Bessières and Berthier) which go through the 17th and 18th arrondissements of Paris. This sector has a considerable number of urban projects, for example the ZAC Clichy-Batignolles (17th), where the future Cité judiciaire de Paris will be installed or the ZAC Chapelle International (18th). This 4.3kilometre extension which is part of the 2015-2020 State-Region Plan (government/regional planning contracts) for the development of the network, multimodal access section, Grand Paris, etc., is expected to involve over 600,000 people and 300,000 salaried workers (including the passengers from neighbouring municipalities). The project will include 8 new stations. Key data Forecasts: Completed: 4.3 km. extension for a total budget of €218m of which Preparatory work for €35.6m: €50m (23 %) is funded by the Climate Bond Laying of first rail forecasted for June 2016. 89,000 passengers/day - 6,364 hours of integration work - 8,700 t.CO₂/year avoided Ecodesign and recycling central to the project State of progress: work in progress Operationally-speaking, the preparatory work has been carried out. Laying of the first rail is forecasted for June 2016. Financially-speaking, this preparatory work represented €35.6m / €50m, i. e. 71 % of the funding allocated. Governance Operational management of the project: a dedicated team with a nominated project manager was set up in the Direction de la Voirie et des Déplacements - DVD (Directorate of Roads and Travel) to monitor the project and report on its progress: - Through six monthly follow-up committees to present the project's progress to the funding partners - Through annual presentations to the Conseil de Paris in the form of a report on the operation Social responsibility **Responsible Procurement** Social clauses included in the works contracts provide for a total of 60,323 hours of integration work for long-term unemployed persons. As far as the support work alone is concerned, the obligation is limited to 7,978 hours. To ensure the correct performance of these clauses, City of Paris signed a partnership with the Maison de l'emploi de Paris. On 31 December 2015, 6,364 hours of integration work had been carried out, with outstanding participation by certain service providers who presented results well beyond their contractual obligations. In the field of Awareness on Safety and Health issues, a Coordination compact relative to the Safety and Health Protection of Workers (Category 1) was awarded for a duration of 63 months, starting in September 2013 (i.e. up to December 2018) specifically for urban integration and support work on the one hand, and related administrative operations on the other. Social cohesion PRM accessibility is an intrinsic component of the project, principally along its route and in the immediate vicinity of the stations: - According to the Cahier des Clauses environnementales des chantiers - CCEc (works site environmental clauses), the temporary pedestrian and disabled routes, and the existing ones modified for the duration of the works, must meet all the regulations in force and in line with the Schéma directeur d'accessibilité de la voie publique (plan for accessibility to public roads) for persons with reduced mobility, and must meet the NF P 98-351 standard of August 2010. In order to do this, clear signposting on the ground is planned, sufficiently upstream of the proposed modifications to the existing provisions, and with the addition of tactile paving stones (in compliance with legislation) designed to mark and secure the mobility chain for blind or visually challenged persons; Communication with users and residents is realized by means of devices which inform, explain and ensure the interface between the users and the tram mission: public or ad hoc meetings with the neighbourhood councils (4), Works Followup Committee, Flash info, T3 Mag, site www.tramway.paris.fr, Infotram (dedicated telephone number and email address for answers to questions from residents and traders) and the daily presence of community workers from the communications bureau all along the route of the future T3. Through these means approximately 225 telephone calls were listed and dealt with by the community workers and 165 email responses were given in 2015. The CCAP (Special conditions) for roadworks contracts contain an article relative to the Protection of residents against all forms of pollution during the operation. 9

Annual Report on the Climate Bond for City of Paris

Environmental Responsibility

Energy consumption

The survey for the T3 extension route was carried out with a view to creating hubs with Métro lines, Mobilien lines, and Paris and Paris outskirts bus lines to improve this redistribution of public space (Travel Plans for Paris and Île-de-France) and final consumption by a **rational use of energy**. This is even more important because on the one hand, this project anticipates the integration of serving rapidly urbanizing areas, and on the other hand, a survey carried out by STIF showed that from this point of view half the T3 users are inhabitants of the municipalities bordering on Paris.

Air quality

The underlying principle of a project focusing on the Tram option (choice of equipment, exploitation, speed, safety) consists of redistributing the available public space, in this case on a regional basis, by reducing the modal share of the automobile in favour of non-motorized traffic (pedestrians, bicycles, etc.). In this respect, air quality through the **reduction of pollutant emissions** is intrinsic to the project.

Ecodesign

Besides the **environmental clauses** and the landscaping project (in the 17th and 18th arrondissements of Paris) which will accompany the arrival of the tramway to enhance the city's heritage and green spaces through a focus on **biodiversity** (the introduction of additional species: deciduous trees and flowering or fruit trees), the works themselves are part of an ecodesign approach: from the Bonneuil-sur-Marne depot, the DVD's *Centre de Maintenance et d'approvisionnement* (CMA) is piloting an **operation for the recycling of materials in natural stone** or concrete (in this case paving-stones), of metal urban furniture (posts, fencing, benches, tree grates, glazed enamel street name plates, etc.) and bituminous coldmix recovered during work to supply the building sites in Paris:

- 15 to 20,000 tonnes/year extracted from the 2.5 million tonnes of granite on site in Paris
- Granite borders transformed by splitting into sample stones or by bush hammering to give them back their initial aspect
- Sample paving stones in granite made into sawn paving stones.

Waste Management:

An article of the *CCAP* of works contracts regarding the production of the *Plan Assurance Environnement – PAE* (Environment quality assurance plan) and to the *Schéma d'organisation et de suivi de l'élimination des déchets de chantier - SOSED* (Plan for organising and monitoring the elimination of site waste) requires the presentation of these documents to the main contractor for approval 4 weeks from the start of the preparation period for these documents.

- When drafting their PAE, successful tenderers are also obliged to take into account the different legal and regulatory recommendations relating to the elimination of waste and the recovery of materials along with the facilities classified for environmental protection;
- They are obliged to take all necessary measures to prevent and prohibit soiling and pollution of all kinds, whether air, land or water pollution, particularly outside the limits of the site. Specifically, the storage and collection centres, and recycling units towards which the waste will be evacuated are defined therein, as are the sorting and evacuation methods and the inspection and follow-up means to be implemented. In addition to this, the release of products for washing machines, draining products, lubricants or fuels into the existing runoff networks is formally prohibited.

Moreover, concerning **hazardous waste**, the *CCAP* of road works contracts contain a specific article on the Processing of Asbestos Waste.

Evaluation of climate benefit

Reduction of greenhouse gases

Assuming that 89,000 travellers/day will use this extension, given that according to the experience drawn from the existing T3, the average number of kilometres travelled is 3 km, the potential modal shift of transport would be:

97,455,000 travellers.km/year

According to the ADEM and RATP sites, a bus emits on average 95 g. CO₂/passenger.km,

Whereas a tram only emits 5 g. CO₂/passenger.km

Therefore, the T3 extension would allow a reduction of 8,700 t.CO $_2$ /year

MAIRIE DE PARIS 🥪

1. Reducing greenhouse gas emissions

2015

Public transport: Rocade des gares - Paris Railway stations ring road (Surface transport)

Project description

Development of a clean-engine public transport line linking the main SNCF railway stations of Paris. This 16 km-long circular line of stations will operate in two East and West arcs.

The steering committee will meet in April 2016 to determine the preferred development scenarios on a section-bysection basis: light development, re-using bus lanes open to bicycles, with improvements and additions all along the route; development of a platform for a dedicated right-of-way bus-based system, bicycles being removed from the bus site to parallel developments); use of high service level buses (HSLB), which will necessitate redevelopment or requalification.

In addition to this, according to the proposals made by manufacturers in terms of self-governance, the decision of whether the buses will be charged at the depot or the terminus.

Key data

Forecasts:
16 km. Development for a total budget of €50m of which €24m (48 %) will be funded by the Climate Bond

<u>Completed</u>: Project not yet launched in 2015

State of progress: preliminary study

Scenario studies are in progress, within the framework of an estimated envelope of €50m

Governance

Operational management of the project: a dedicated team headed by a project manager will most likely be set up in the *Direction de la Voirie et des Déplacements - DVD* (Directorate of Roads and Travel) to follow the project assiduously, as is the custom at the Mobility Agency; however, given the state of progress of the project this has not yet been decided.

Social Responsibility

Sustainable procurement

As no contract has yet been awarded, reporting on this aspect is not applicable.

Social cohesion

PRM accessibility is a legislative performance constraint (obligation under Act No 2005-102 of 11 February 2005 for equal rights and equality of opportunities and the inclusion and citizenship of persons with disabilities) which is by definition complied with during the project design phase. This point will be confirmed during later reports.

To calibrate this project with the needs which have been identified, a **consultation** on this project has been carried out with the following public or semi-public bodies: STIF, RATP, Préfecture de Police, DRIEA (*Direction régionale et interdépartementale de l'équipement et de l'aménagement d'Île-de-France*), Région and SNCF.

The basic rationale of this project is the ecologically responsible networking between stations in order to **facilitate users' transport between these centres safely quickly and qualitatively**. The user is therefore central to this project.

Environmental Responsibility

Air quality

Improving air quality through the **reduction of greenhouse gas emissions** is an essential component of a project focusing on the choice of high service level buses (HSLB) to replace more polluting means of transport.

Energy consumption

Likewise, replacing more polluting buses with (electric) HSLB with differentiated **Terminus / Depot scenarios** places the management of energy consumption at the heart of the project.

Ecodesign

Observing the technical developments offered by the manufacturers, and even encouraging them to makes such developments, constitutes an **ecodesign approach** which should be strengthened as the project becomes better defined. A relevant example of this is that the issue of respecting the impacts, particularly on trees and plants, was integrated during the feasibility studies: thus, for example, on the Boulevard Saint-Marcel and the Boulevard de l'Hôpital, the unavoidable felling of trees will be compensated by a replanting which is already planned and guarantees that the demands of **biodiversity** will be met.

Environmental Responsibility (continued)

Ecodesign (continued)

As to the **environmental clauses**, one should remember that 54 % of the contracts awarded by the City contain a clause and/or a criterion for judging environmentally related proposals.

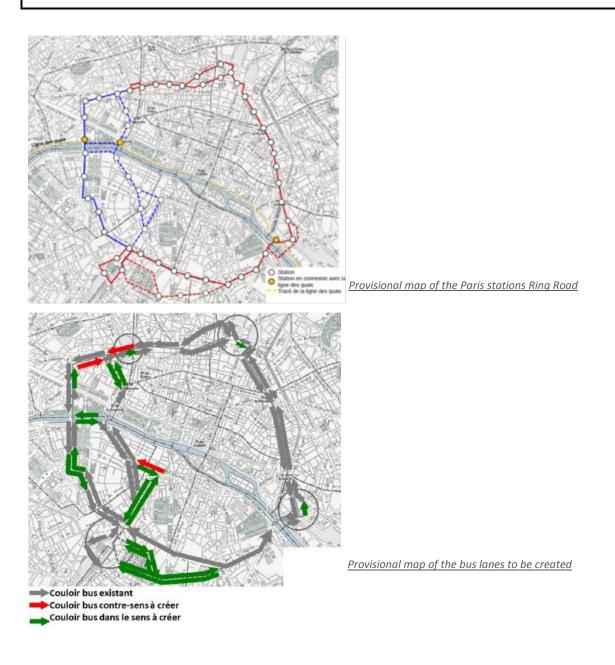
Waste Management:

In view of the state of progress of the project, we cannot present precise data. Nevertheless, **the legal and regulatory recommendations relative to the elimination of waste and the recovery of materials** and those pertaining to facilities classified for environmental protection must be integrated into the projects of the DVD almost systematically; especially as more than 62 % of the works contracts awarded include the selective collection which is compliant with the SOGeD /SOSED ("*Schéma d'Organisation et de Gestion des Déchets* - "Plan for the organisation and management of Waste" and "*Schéma d'Organisation et de Suivi de l'Élimination des Déchets*").

Moreover, hazardous waste is also regularly subject to an article of the CCAP of road works contracts.

Evaluation of climate benefit

This evaluation can only be carried out following a more accurate definition of the project.



1. Reducing greenhouse gas emissions

Non-motorized traffic: Cycle paths

Project description

In the course of developing cycle use in the region, the project consists of linking and completing the 730 km of cycling network previously created, which is an essential part of the promotion of a true cycling culture (cycle-tourism, cycling festivals, etc.) by making the bicycle accessible to all (cycling schools, school-based training, repair workshops, etc.). This means creating an express cycling network which would make it possible to cross Paris from West to East and from North to South; to standardize a 30km/h speed limit throughout Paris and create a network of two-way bicycle paths; to continue the development of parking areas, including secure parking, over the whole territory; to close the main gaps in urban fragmentation and provide a cycling continuity between Paris and her inner suburbs by improving the "cyclability" of the gates of Paris.

Key data

- Forecasts:
 - 670 km of paths created for a total budget of €60m, of which €40m (60 %) are funded by the Climate Bond

Completed:

- €1.9m invested for 6 km developed
- 600 t.CO₂/year

State of progress: in progress

Operationally-speaking, the target is to increase the 730 km of cycle paths to 1,400 km by 2020.

Financially-speaking, over the period concerned, €1.9m have been invested

Governance

Operational management of the project: a dedicated team has been set up in the *Direction de la Voirie et des Déplacements – DVD* (Directorate of Roads and Travel) to follow the project and report on its progress:

- Through monthly cycle plan monitoring committees, internally and with the associations
- Through presentations with the adjoint de tutelle of the Town Hall of Paris

Social Responsibility

Responsible Procurement

The development of the Plan Vélo (Cycle Plan) contains social clauses for subcontracting to the unemployed.

In the field of Awareness on Health and Safety Issues, whether for workers or the general public, this is subject to the provisions of CCAP and CCTP

Social cohesion

PRM accessibility is a component in any project for the development of public space, and the creation of cyclable developments meets the conditions of the *Plan de Mise en Accessibilité de la Voirie et de l'espace public parisien* (Plan for the development of accessibility to roads and public space) which is part of the improvement of accessibility on the perimeter of the projects.

Communication with users is constant: from the development of the Cycle Plan to its improvement

- Citizen consultation on the internet (from 15 December 2014 to 11 January 2015, with 7,004 participants) incorporated during meetings with the mayors of the arrondissements and partners of the City (STIF, RATP, Préfecture de Police) and 8 local bicycle and transport committees.
- Proposals received in the framework of the participative budget
- Use of diversified communication channels
 - Information to citizens' associations by means of the press or through cycle committees
 - Feedback of grievances via the Cycling associations (participant in the cycle committees) and the "dans ma rue" Smartphone application

For example, in 2015 in the 13th and 14th arrondissements, grievances relating to concerns about the discontinuity and discomfort of current paths were subject to improvements agreed in partnership with the cycling associations.

The *CCAP* of the roadworks contract also contains an article relating to the **Protection of residents against pollution** of all kinds throughout the operation.

Environmental Responsibility

Air quality

Air quality through the proposal of non-motorized traffic modes, which aims to reduce automobile traffic and **associated greenhouse gas emissions**, is central to the project. Among the **environmental clauses** contained in the *CCAP*, a clean vehicle clause, with inspection of vehicle registration documents, has been inserted.

Annual Report on the Climate Bond for City of Paris



Environmental Responsibility (continued)

<u>Ecodesign</u>

The project falls within the objectives of the mandate concerning the creation of 20,000 trees, rainfall zoning and the creation or sustainability of ecological corridors. At the very least, **biodiversity** (according to the obligatory impact study carried out during preliminary studies) and, wherever possible, the place of nature, is preserved (the removal of trees or flower-tubs is only considered in exceptional circumstances and as a last resort). For example, the *CCTP* specifies that the root collar of a tree must imperatively be protected during the work, whatever the type of tree. In addition to this, the cycling developments integrate sustainable development (planting, accessibility, etc.) whose cost, by integration, can be practically nil.

In addition to this, an **activity for the recycling of materials in natural stone** directed by the *Centre de Maintenance et d'approvisionnement – CMA* - of the DVD from the Bonneuil-sur-Marne depot, and multiple recommendations as to the reemployment of various materials, have all been written into the *CCTP*.

Waste Management:

An article of CCAP of works contracts relative to the production of the *Plan Assurance Environnement - PAE* (Environment quality assurance plan) and the *Schéma d'organisation et de suivi de l'élimination des déchets de chantier – SOSED* (Plan for the organisation and monitoring of Waste management) demands that these documents be presented for the approval of the main contractor within 4 weeks of the start of the preparation period.

- When drafting their PAE, successful tenderers are therefore obliged to take into account the various **legal and regulatory recommendations relative to the elimination of waste and the recovery of materials**, along with the facilities classified for environmental protection;
- They are obliged to take all necessary measures to prevent and prohibit soiling and pollution of all kinds, whether air, land or water pollution, particularly outside the limits of the site. Specifically, the storage and reprocessing centres and recycling units towards which the waste will be evacuated are defined, and the sorting and evacuation methods and the means of inspection and follow-up implemented. Also, the release of products for washing machines, draining products, lubricants and fuel releases into the existing runoff networks is formally prohibited.

Moreover, concerning hazardous waste, the CCAP for roadworks contracts contain a specific article on the Processing of Asbestos Waste.

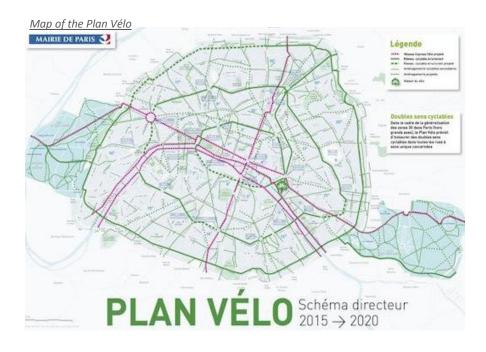
Evaluation of climate benefit

Reduction of greenhouse gases

The gain for the cycle paths is estimated based on similar traffic by conventional private car.

A gain of 100 t.CO $_2$ /km/year made over 6 km results in the following evaluation:

The 2015 development allows a reduction of 600 t.CO₂/year



1. Reducing greenhouse gas emissions

Electric vehicles: Installation of Bélib' charging terminals

Project description

The political will to encourage the development of the fleet of electric vehicles which are more respectful of the environment, has led to planning, in addition to the normal 3 kW charge of the Autolib stations, the deployment of a network of accelerated charging stations (maximum power: 22 kW or 50 kW in some petrol stations) accessible to private vehicles. This Parisian network, known as Belib', will be inaugurated on 12 January 2016. It will be in two phases:

- 1. Phase 1: 60 stations (3 charging terminals / station)
- 2. Phase 2: 30 additional stations (planned for 2017).

Key data

Forecasts:

 90 terminals set up for a total budget of €6m of which €6m (100 %) are funded by the Climate Bond

- Completed:
- €1m invested for 17 terminals set up
- of which 4 are operational
- 1,250 t.CO₂/year

State of progress: in progress

Operationally speaking, on 31 December 2015, 17 Bélib' terminals were installed, of which 4 are operational. **Financially-speaking**, over the relevant period, €1.05m have been invested

Governance

Operational management of the project: a dedicated team headed by a project manager was set up in the *Direction de la Voirie et des Déplacements - DVD* (Directorate of Roads and Travel) to follow-up the project and its progress.

- From the design phase to the phase of first deployment (November-December 2015): weekly follow-up.

Social Responsibility

Social cohesion

In this incentive project, **the user (trader or not) is the actual target of the project**. There has been consultation with a working group headed by the DVD and bringing together professionals and representatives of the various professions, the Chamber of commerce and Industry (CCI) and the Chambre de Métiers et de l'Artisanat (CMA).

Firstly, a consultation with the Mayors of the arrondissements concerning the setting up of Bélib' charging stations was conducted, with the aim of covering in a more or less homogeneous manner the whole Parisian region.

Following this, the areas identified as showing a higher need (given the number of electric vehicles listed), using the charging statistics on the Autolib' network, have been densified.

By definition, **accessibility for all** to these facilities is not specifically PRM, apart from the fact that their setting-up is such that it in no way impedes their mobility.

Responsible Procurement

Clauses relative to the **Protection of residents against pollution** of all kinds throughout the duration of the roadworks operations and to the **Safety and Health Protection of Workers**, as in all the City's contracts, are integrated into the CCAP.

Environmental Responsibility

Air quality

Air quality is the ultimate goal of the project: the incentive (through an available accessible offer) to use private electric vehicles logically targets the **reduction of greenhouse gas emissions**. The charging terminal contract is fully consistent with this, and its **environmental clauses** contain a clean vehicle clause and a clause encouraging eco-driving.

Ecodesign

The Bélib' terminals have been specifically developed in collaboration with City of Paris via the bringing together of service providers, between August 2014 and July 2015. The conditions for the execution of services contain the following environmental elements:

- The materials used are preferably from recycling and are recyclable.

- Traceability of the sourcing of materials must be justifiable at any time during the execution of services

Environmental Responsibility (continued)

Ecodesign (impacts)

In light of the aim of the contract, environmental compliance is indirect (with no impact on **biodiversity**). The contract includes an **environmental clause**: the dematerialisation clause which recommends that all deliverable documents be made available preferably in dematerialised format (.xls, .pdf or equivalent formats) and/or on recyclable or eco-labelled paper which guarantees the use of wood from sustainably managed forests (e.g.: FSC, PEFC or equivalent labels).

Energy consumption

The ecodesign approach takes the form of the **smart management of the energy available** by the Belib' station: according to demand (1 to 3 vehicles at the same time), the power is distributed to each of the terminals:

- The accumulated power of the 3 terminals in the station is a potential 47 kW (22 + 22 + 3)
- On average, 1 hour is sufficient to charge a vehicle to 80 %

The system is designed to be **upgradeable**: in its current state, the terminal is connected to the 36 kW network (which implies a **capping** of the power distributed if 3 vehicles are charging at the same time). In the long term, the energy management software will, for example, be able to limit charging in peak periods.

Other methods of regulation are also already being considered, such as pricing to encourage night charging,

Waste Management:

An article of CCAP of works contracts relating to the production of the *Plan Assurance Environnement* - *PAE* (Environment quality assurance plan) and the *Schéma d'organisation et de suivi de l'élimination des déchets de chanter* - *SOSED* (Organisation and monitoring of Waste management Plan) demands that, when drafting their PAE, successful tenderers take into account the various **legal and regulatory recommendations relating to the elimination of waste and the recovery of materials** along with the facilities classified for environmental protection;

They are obliged to take all necessary measures to prevent and prohibit soiling and pollution of all kinds, whether air, land or water pollution, particularly outside the limits of the site. Specifically, the storage and reprocessing centres and recycling units towards which the waste will be evacuated are defined, and the sorting and evacuation methods and the means of inspection and follow-up implemented. Also, the release of products for washing machines, draining products, lubricants and fuel releases into the existing runoff networks is formally prohibited.

The design of the terminal (number of openings, component accessibility) has included the need for rapid maintenance. The **recovery of waste at the end of its life cycle** will be taken into account in a future maintenance contract which will be implemented from July 2018.

Evaluation of climate benefit

Reduction of greenhouse gases

Given the current state, it is estimated that each terminal does 2 complete charges per day. This corresponds to an electricity consumption of 60 kWh for 600 thermal km. avoided

Therefore by low estimate, pending the real consumption reading of the terminals: For 17 terminals, the carbon gain is 1,250 t.CO₂/year

Examples of Bélib' terminals





Annual Report on the Climate Bond for City of Paris

MAIRIE DE PARIS 🥪

2. Reducing energy consumption

2015

Sustainable buildings: Sustainable social housing (HEQ constructions, thermal insulation)

Project description

Since 2009, the energy renovation of existing social housing aims to assist housing associations in reaching a 30% reduction in the energy consumption of the social housing stock by 2020.

Operationally speaking, the goal set is the funding of the overall renovation of 4,500 housing units per year.

Overall renovation is understood to mean an energy renovation which acts on all the items on which intervention is possible. The level of performance is nevertheless adapted to the technical and architectural qualities of the buildings, in order to be able to benefit all the segments of the housing stock and in particular those with heritage value.

Key data

Forecast:

- 27,000 housing units renovated for a total budget of
 €225m of which €55m (24 %) are funded by the Climate Bond
- To approach the 80 kWhep/m²/year defined by the BBC-Effinergie renovation label

Completed:

- €45.7m invested (with funding share)
 i.e. 83 % of allocated funds
- 4,459 housing units concerned
- 39,761 MWh/year ultimately saved

State of progress: in progress

Operationally speaking, during 2015, 4,459 housing units were renovated, which completes the 25,623 housing units renovated from 2009 to 2014.

Financially-speaking, the refunding share of the Climate Bond contributed to this project.

<u>Go</u>vernance

Operational management of the project: a dedicated team headed by a project manager in the Housing and Funding Department of the *Direction du Logement et de l'Habitat - DLH* (Directorate of Housing and Habitat) monitors this pluriannual project and its progress:

 <u>Day-to-day management</u>: An IT tool which makes it possible to complete the financial and technical characteristics of the operations of the funding request files as they arrive, including the works packages planned and the energy performance targeted by the works. The administrative progress of the files is thus monitored right up to the vote in the *Conseil de Paris*.

- <u>Monthly quantity reporting</u> in the framework of the Directorate's management control in such a way as to allow monitoring of the development of the goal of 4,500 housing units funded per year;

- Yearly quality reporting for the "bleu budgétaire logement" (at the end of the year).

Social Responsibility

Responsible procurement

The funding of the energy renovations of the social housing stock does not engage with public procurement but rather with an idea of partnership (including subsidy) with the housing associations. The social and environmental responsibility incurred by the funders (see following paragraphs) make up a complete section which determines the partnership relationship and subsidy, and as such is subject to regular evaluations by the municipal administration (see Governance).

Social cohesion

The actions of City of Paris regarding social housing target **social diversity**, which lend this project a socially responsible character particularly where social cohesion is concerned.

As this is aimed mainly at increasing **comfort for users**, the users are central to this system: a consultation of the inhabitants (information meetings and consultation meetings with voting by the tenants on the successful project) is conducted by regulatory obligation by the funder, who prioritizes the projects according to the actions pursued within the framework of the City's Policy and its stated aims.

As to **PRM accessibility** to common areas, this is provided for in the requested certification.

Environmental Responsibility

<u>Air quality</u>

Air quality is treated via the certification obligation which specifically sets the targets regarding the renewal of air in living quarters and VOC releases from the wall coverings in place.

Environmental Responsibility (continued)

<u>Ecodesign</u>

Since 2014, the **Cerqual PH-Rénovation certification**^{*} and the **Energy Performance Label** are required for all funded energy renovation operations, except for small scale operations (e.g. insulation of a gable wall) or those for which certification is impossible (e.g. when it is impossible to act on the common areas managed by an operator who is independent from the funder). In 2015, only 4 operations out of 66 do not provide for a certification.

* Even though it will retain the same characteristics, from 2016 a developed version of this certification will become known as NF Habitat.

Air quality & Biodiversity

Air quality is treated via the certification obligation which specifically sets targets regarding **air renewal in the living quarters and the emission of VOC of the wall coverings** installed.

Beside minimizing the impacts of renovation operations, the greening of buildings is being studied within the framework of the **biodiversity** plan and the mandate's objective of 100 ha of revegetation on the built environment. These installations must meet the recommended technical specifications for greened roofs and the "greening of walls and roofs" specifications drafted by City of Paris. In 2015, 15,611 m² of greened surfaces on the built environment were thus created.

Energy consumption

DLH monitors thermal regulation performances on delivery, to verify compliance with the specifications made by housing associations and clients on payment of a subsidy:

- If the installations are collective, the funder **ensures best use of heat production once the work has been completed**. In this case, the energy-related charges can be recovered from the tenants of the housing stock.
- If the installations are private, the management of energy consumption is incurred by the tenant who often benefits from **information** by the funder on the best way to manage the facilities.

Waste management:

The actual operations (of various kinds in the case of renovation) provide for the implementation of **sorting for recycling** whenever possible. This work item is inspected within the framework of the certification. In addition to this, the question of premises dedicated to sorting for recycling (setting up of three recycle bins) is included.

In view of the nature of the project, the management of hazardous waste is not applicable.

Evaluation of climate benefit

Reduction of energy consumption

In 2015, 39,761 MWh/year were funded (i.e. saved following completion of the operations) i. e. 6,878 t.CO₂e (by ad hoc multiplication of the carbon footprint)



Examples of delivered renovated social housing



Annual Report on the Climate Bond for City of Paris

2. Reducing energy consumption

Public lighting: Energy Performance contract (MPE)

Project description

The main target of the *Marché de Performance Energétique – MPE* (Energy Performance Contract) consists of reducing the electricity consumption of public lighting and light-signalling devices by replacing less efficient lights and the most energy-hungry sources. This contract contains a performance requirement: yearly energy performance objectives. This therefore results in target yields in KW/ \in of the operations which must imperatively be met.

It is therefore the successful tenderer's responsibility to understand the installations in Paris and to offer the City energy renovation "Climate Plan" operations which are compatible with these yields. Successful tenderers must therefore always find the best technical and environmental solutions to meet the targets of the contract.

Key data

- Forecast:
 The MPE tranche concerned has a total budget of €61m of which €60m (99 %) are funded by the Climate Bond
 Savings target: 3,560 MWh
- Completed: - €25m invested, i. e. 42 % of allocated funds
- 4,310 MWh saved

State of progress: in progress

Operationally speaking, the project concerns 175,000 lights, 63,000 lighting poles, 30,000 lighting consoles, 21,000 traffic light supports and 313 lighting sites.

Financially-speaking, the total energy bill for 2014 at €15.7m (for 123 Gwh), the €25m invested in 2015 will be rapidly compensated by an average 4.5 %. annual decrease in energy consumption

Governance

Operational management of the project: a dedicated team headed by a project manager in the Public Lighting Section of the Directorate of Roads and Travel (DVD) monitors this plurennial project and its progress:

- <u>Weekly reporting</u> of the Climate Plan operations with progress report on financial commitments, works site preparation, the development and delivery of sites and financial settlement.
- Quarterly & yearly reporting on the operations of the contractual year and forecasts for the following year

Social Responsibility

Responsible Procurement

Successful MPE tenderers, through a social integration clause, has a fixed obligation in the percentage of hours worked (10 %) for a total number of hours estimated at 32,637. In 2015, integration represented 10.4 % hours worked and the successful tenderer received the "SMA Insertion" label by setting up collaboration to accept persons serving community service orders and in penal work.

The successful tenderer has a **prevention charter** which defines the permanent stakes relative to prevention and an organisation which makes it possible to collect and record the third-party accidents on sites and to feed back the near accidents and risk situations. In 2015, 3 minor accidents were identified.

Social cohesion

As an administrative project, the user is considered from the angle of increased **comfort for users** where the aim of the project is concerned. As an example, in addition to information programmes, a satisfaction survey has been conducted with the users in the 13th arrondissement to find out how they feel about the installation of new lighting with presence detection (contributing to energy saving).

The "dansmarue" phone application also makes it possible to notify the successful tenderer of all the problems users encounter with the lighting installations, so that suitable rapid corrective actions can be implemented. Consequently, **interaction with users** becomes possible, given that a complaints collection procedure has been installed (1,454 have been dealt with since 2011, the year of the first MPE tranche)

Environmental Responsibility

Ecodesign

ISO9001 / ISO14001 / OHSAS 18001 certifications are applied to MPE. In this framework, in addition to the request for *Profil Environnemental Produit – PEP* (Product Environmental Profile) from suppliers, a life-cycle analysis was conducted on around twenty products among 12 of the suppliers.

Air quality

Air quality is treated from the point of view of the greenhouse gas emissions released. A carbon footprint linked to public lighting activities is carried out every year and shows a 21 % decrease in emissions since 2012. As the successful tenderers must achieve a determined rate of clean cars in their fleet, they are also in the process of testing the first completely electric nacelle.

Environmental Responsibility (continued)

<u>Biodiversity</u>

Biodiversity is a permanent element of the project through the implementation of action 20 of the Biodiversity Plan "adapting lighting": the renovation of lighting will be an opportunity to optimise the orientation of the light flow on the areas to be lit. The experimentation of lighting respectful of biodiversity was carried out in a square in Paris with an inventory of targeted species upstream in order to measure more efficiently the consequences of light and adapt the innovative equipment.

Energy consumption

The reduction of energy consumption is the basis of this energy performance contract:

- Each project is subject to a photometric study, which is validated by the client
- The estimated gain is then validated, following the work
- The new financial flow data update the data base and the accumulated energy gain in real time.

Waste management:

Successful tenderers are **contractually obliged** to aim at reducing the impact of their waste on the environment by a valorisation which is 91 % in 2015 (including 93 % for public lighting), i.e. 507 t. recycled waste.

Likewise, where **hazardous waste** is concerned, 97 % has been processed by recycling or recovering materials and 3 % by end-of-life recovery.

Evaluation of climate benefit

Reduction of energy consumption

In 2015, 4,310 MWh/year were saved i. e. 395 t.CO₂e (by ad hoc multiplication of the carbon footprint)

Example of the Porte de Vanves périphérique tunnel

An emblematic operation for the improvement of energy efficiency which targets the reduction of energy consumption

- 1. Halving night-time lighting
- 2. The implementation of extra lighting (lighting at the entrance which avoids dazzling) adapted to the real speed of vehicles observed on the previous section: speed sensors equipped with a luminance sensor have now been integrated into the tunnel's automatic control system which calculates the illumination value and consequently grades the lights according to established patterns.



In addition to a **41% energy gain per year**, which produces a return on investment of 6 to 7 years, this device extends the life of the lights by stabilizing the current on the electrical circuits.

MAIRIE DE PARIS 🥪

3. Producing renewable and waste energy

Part of the funding by the Climate Bond (€5m) is reserved for this aspect

No projects for the production of renewable energy of any material relevance are being launched in 2015. Nevertheless, City of Paris is undertaking a number of actions relating to this goal of the Climate Energy Plan for City of Paris, as illustrated by the decision that all the contracts to be renewed by 1 January 2016 must provide for the purchase of 100 % renewable or waste energy, or energy from cogeneration.

The funding and description of the allocation of the €5m dedicated to the production of renewable or waste energy will consequently be developed in subsequent reportings (Reporting for 2016 and/or subsequent years).

However, certain operations which are already being conducted by City of Paris deserve to be mentioned here:

- Several photovoltaic panels have been installed on various development projects (housing or other), without actually being central to the operation in 2015.
- Some projects were completed before the November 2015 issue. As an example, the Olivier de Serres school group (15th arrondissement) which was the first municipal facility to receive the low consumption label (BBC) for multiplying ecological innovations (including solar panels: 200 m² in photovoltaic and 28 m² in thermal) was inaugurated in June 2015.
- Certain projects have not yet been finalised. As an example, a public contract is planned for the supply of waste energy from a computer activity (along the same lines as the first experiment which aimed at heating the swimming pool of la Butte aux Cailles in the 13th arrondissement, through recovery of the unavoidable energy of datacentres). The details of this contract are not yet known, so will be included in the next 2016 reporting and/or following Climate Bond reportings.

MAIRIE DE PARIS 🥪

4. Strategy for territorial adaptation

30 new hectares of green spaces

Project description

The development of nature in cities, which specifically includes the creation of green spaces, is a powerful lever for adapting to climate change, as it makes it possible to combat heat islands by cooling the densely built Parisian territory, and to offer permeability and therefore a capacity for soil absorption in the case of heavy rainfall (less risk of flooding). It integrates plants which are beneficial in the fight against greenhouse gases and creates areas for the development of biodiversity (pollinating insects, wildlife).

City of Paris has already delivered more than 62 ha of new green spaces during the last 2 terms of office between 2001 and 2014, and has launched an ambitious programme for the creation of 30 ha of additional green spaces open to the general public over the period 2014-2020.

Key data

Forecasts:

 7.3 ha of green spaces funded by €45m of the Climate Bond from a total budget of €67m (67% funded) Completed:

- Determination of new areas of green spaces

State of progress: preliminary study

Operationally speaking, a forecast of the operations has been defined: funding by the Climate Bond should make it possible to finance 2,620 m² of "*Balcon vert*" (green balcony) and green spaces distributed as follows: 11,000 m² in the ZAC Claude-Bernard / Forêt linéaire nord and the natural reserve of the canal Saint-Denis, 1,040 m², rue de l'Echiquier, 1,250 m², at Teilhard de Chardin, 1,900 m² at the Hôpital Saint-Lazare/square Alban-Satragne, 5,580 m², Truillot/Richard Lenoir/Voltaire, 6,500 m² in the ZAC Paul-Bourget/Parc Kellerman, 8,000m², Boulevard Victor et 35,000 m² in Clichy-Batignolles (Phase 2).

Financially speaking, the forecast resolution was not included in the allocated funding.

Governance

Operational management of the project: a dedicated team headed by an appointed project manager was set up in the Service Paysage et Aménagement de la Direction des Espaces Verts et de l'Environment – DEVE - to monitor the project and report on its progress:

- A yearly Steering committee (COPIL 30 ha) (2 in 2015) under the authority of the General Secretariat, in the presence of the elected representatives, during which the detailed state of progress of the programme and the provisional schedule of delivery are presented and validated
- A geographical information systems (SIG-V) was developed in order to monitor all the revegetation projects
- Reinforced budgetary monitoring overseen by a committee for scheduling public space operations (CoPOEP).

Social Responsibility

Responsible Procurement

Without being specific to these contracts, social clauses and Awareness on Safety and Health issues are systematically included.

Social cohesion

PRM accessibility, which is included in a wider brief of **accessibility to all persons with disabilities** (visually and hearing impaired, etc.), is always integrated into all the projects for the creation of new green spaces from the design stage onwards.

The creation, followed by the exploitation, of green spaces incorporates all the users:

<u>From the design stage</u>: adaptation to new uses, identification of the expectations of the people of Paris during consultations: public meetings organised by the town halls of the arrondissements and open to all (neighbourhood associations, collectives, individuals, etc.) which are an opportunity to define certain uses to be set up in the new space: playground definition (surface, type of games, age groups, etc.), routes etc., and also the interactive application which enables direct on-line design of the future development of the park (as for the Chapelle Charbon project)

During the works stage: as all the green spaces are QualiParis labelled (label built with AFNOR), compliance is ensured:

- Information for users (www.paris.fr, 3975, etc.)
- Clear signposting updated on all the sites
- Reception and information by field agents
- Attention to users (answers to questions, book of comments, etc.)

A satisfaction survey is also conducted regularly to receive users' remarks.



Environmental Responsibility

Ecodesign & Biodiversity

The creation of green spaces falls by definition within the Biodiversity plan (green belt) of the City because the new green spaces are **biodiversity reservoirs** and because all newly created spaces help improve the **ecological continuity** which is favourable to the development of wildlife in densely built urban environments. Moreover, from its design stage, the creation of green spaces integrates an ecological and sustainable dimension (indigenous plants, water circuit, differentiated management, limited lighting, etc.).

In City of Paris works contracts, **specific clauses** carry obligations of means and results in terms of ecodesign for the main contractors and successful tenderers. For example, for the wood used, the clause inserted in the contracts is as follows: "The contractor must supply all the certificates and supporting documents proving that the woods proposed are from sustainably managed forests, with FSC, PEFC, OLB or equivalent **certification**."

Air quality

By integrating beneficial plants, green spaces combat **greenhouse gases**: the growth of the plants by photosynthesis fixes carbon and produces oxygen, thus reducing greenhouse gas emissions. For example, the 2,000 ha of the Bois de Vincennes and Boulogne represent 11,000 tonnes of "stored" carbon (source 2009 City of Paris carbon footprint).

Waste management:

<u>During the works phase</u>, in addition to the *CCAP* article of the works contracts relative to the production of the *Plan* Assurance Environnement – *PAE* (Environment quality assurance plan) and the *Schéma d'organisation et de suivi de l'élimination des déchets de chantier* - *SOSED* (Plan for organising and monitoring the elimination of site waste) demand that successful tenderers take the various **legal and regulatory recommendations relative to the elimination of waste and the recovery of materials** into account along with the facilities classified for environmental protection, in a reemployment approach, the DEVE optimises **on-the-spot reuse of the waste produced**. For example, the earth extracted when digging foundations is used as backfill or complement to model the terrain.

During the works period, the gardens operation department recycles the green waste produced at over 70 % (mulching, composting, etc.).

In addition to this, where the **waste from polluted land** is concerned (through the historical presence of an industrial activity), according to the level and type of pollution, DEVE reuses or confines the soils, or sends them to suitable reprocessing centres.

Energy consumption

From the study phase and subsequently during the execution of the work, DEVE integrates sustainable management (i.e. adapted light sources and low consumption lighting). Additionally, in its contracts, respect for the environmental standards in force results in the imposing of additional restrictions (for example the on-site use of NGVs or recent mechanical machines).

Evaluation of climate benefit

<u>Territorial adaptation to climate change</u> in compliance with the City's reporting commitments is not demonstrated by a carbon evaluation but by the number and type of green spaces created.

MAIRIE DE PARIS 🤍

4. Strategy for territorial adaptation

2015

20,000 trees

Project description

Planting of 20,000 additional trees over the whole territory of Paris between 2014 and 2020: in the streets; roadway public spaces whose redevelopment is identified for this mandate; on the banks of the river Seine and the banks of the Boulevard Périphérique in connection with the *Schéma régional de cohérence écologique – SRCE* (regional scheme of ecological coherence) which identifies them as biodiversity corridors; in schools, with a teaching programme on orchards to support it; in gardens; in sports facilities, for the most part located in the SRCE biodiversity belt; in the scope of major urban redevelopment operations and even for private individuals; in the scope of building permits or with the "un arbre dans mon jardin" ["a tree in my garden"] operation.

Key data

- Forecasts:
- Planting of trees for €15m (83 %)
- on a total budget of €18m
- 1,050 hours of social integration work

Completed:

- €0.8m invested (4 %)
- Close to 700 newly planted trees

State of progress: in progress

Operationally speaking, the tree-planting operations are not linear due to seasons, which explains that:

Financially speaking, only €0.8m have been invested since the Climate Bond was issued

Governance

Operational management of the project: a dedicated team headed by an appointed project manager was set up in the *Service Arbre et Bois of the Direction des Espaces Verts et de l'environnement (DEVE)* to monitor the project and report on its progress, making specific use of the geographical information system (SIG-V) which was developed to:

- Identify the potential for planting trees: 1,200 projects are identified
- Monitor the progress of the different tree-planting projects

Social Responsibility

Responsible Procurement

The contract for planting new trees in public municipal facilities for a duration of 18 months from October 2015 contains as a **social clause** an article 14 of the Public Procurement code and sets this obligation at 1,050 hours of social integration work.

In the same way as for all the City's contracts, especially for those concerned with services on green spaces, Awareness on Safety and Health Issues forms part of the contractual specifications. No accidents have been identified on these sites.

Social cohesion

PRM accessibility is taken into consideration from the design phase for the planting of trees to ensure the maintaining of accessibility to PRM once the tree has been planted and also in the transitional phase.

Even though there has been no overall consultation on the total 20,000-tree programme, **information for residents** on tree planting is supplied through:

- Regular ad hoc meetings with residents to present the plantation projects.
- Information on the website paris.fr/arbres on all the tree operations and new plantations.

Besides these information procedures, the call for participation is organised:

- via the "permis de végétaliser" (planting permits): the people of Paris are invited to take part in the planting of saplings.
- in the scope of the "programme des vergers dans les écoles" [orchards in schools], projects are co-established with the different actors and future users (teachers, ARE mediators and recreation centres)
- tree-planting events are organised with the user-schools.

In addition to this, a **procedure for receiving complaints from users**, specific requests and satisfaction feedback is set up *via* the 3975 (City of Paris call centre), with the commitment to answer all questions.

Environmental Responsibility

Ecodesign & Biodiversity

The programme falls within the Biodiversity plan, with a **reinforcing of ecological corridors**. However, this respect for biodiversity, which is an incentive to implant native species (of regional plants), limits the choice of species which is made according to the conditions for planting, distance from facades and the future pruning constraints, the state of the sapling or the soil type and water requirements.

Nevertheless, whenever possible, i.e. when there are fewer constraints regarding landscaping criteria and the development of the public spaces, this means that on certain sites such as the university halls of residence, environmental management is set up which takes into consideration the diversity of species and their adaptation to the territory.

Air quality

Plantations **combat greenhouse gases**: the growth of the plants through the activity of photosynthesis helps to fix carbon and produce oxygen thereby reducing greenhouse gas emissions.

Waste management:

A relatively rare issue with respect to green waste as this is not the replacement of trees but of planting new ones. As with green spaces, this is done in a reemployment approach; DEVE optimizes **on-the-spot reuse of the waste produced**. For example, the soil extracted when digging foundations can serve as backfill.

In addition to this, the contract clauses provide for a differentiated processing according to the type of waste:

- Asphalt: reintroduced into a recycling channel
- Stumps: sorted and separated to be reused (wood for heating, for example)

Evaluation of climate benefit

<u>Territorial adaptation to climate change</u> in compliance with the City's commitments relative to the reporting is not demonstrated by a carbon evaluation but by the number of trees planted in inner-city Paris.





ANNEXE

2015

VIGEO EIRIS

Opinion¹ on annual review of the City of Paris' Climate Bond

¹ This opinion is to be considered as the "Consultant review" described by the Green Bond Principles (2016 edition in the 'External Review' section). The Green Bond Principles include the Voluntary Process Guidelines for Issuing Green Bonds and the Guidance for Issuers of Social Bonds (see: <u>www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/</u>)





OPINION¹ ON ANNUAL REVIEW OF THE CITY OF PARIS' CLIMATE BOND

Issued in November 2015

SCOPE

Vigeo Eiris was commissioned to provide an independent opinion on the sustainability credentials and management of the Climate Bond (the "Bond") issued by the City of Paris (the "Issuer") according to the Vigeo Eiris Environmental, Social and Governance (ESG) assessment methodology. The opinion is based on the annual review of the two following components:

- Issuer: update of the document-based evaluation of the ESG commitments, performance and risk management of the issuer.
- Issuance: document-based review of the implementation and transparency of the City of Paris's Climate Bond framework, in line with the Green Bond Principles, including
 - Project review: evaluation of the issuer's capacity to use the bond proceeds to finance projects with climate benefits, in line with its initial commitments, and to report on the projects results; analysis of the projects results
 - Bond review: evaluation of the issuer's capacity to implement the bond processes, in line with its initial commitments (evaluation and selection process and allocation process) and to report on the bond results; analysis of the aggregated bond results

Vigeo Eiris' sources of information are gathered from the Issuer, press content providers and stakeholders. Vigeo Eiris has carried out its due diligences from the 5th of October and December 22nd, 2016.

VIGEO EIRIS' OPINION

Vigeo Eiris remains of the opinion that the bond issued by City of Paris is a "Climate Bond", aligned with the Green Bond Principles.

Vigeo Eiris maintains its reasonable² level of assurance on the sustainability of the bond.

- The City of paris continues to display an overall advanced² ESG performance (see Part I.).
- We provide a reasonable level of assurance on the implementation of the City of Paris's Climate Bond framework and on the transparency and relevance on the reporting (see Part II.)
 - Up to date, 98% of the net proceeds of the issuance have been used to finance 8 projects, corresponding to the categories and sub categories initially defined by the City of Paris. We provide an overall reasonable level of assurance regarding the Issuer's capacity to use the bond proceeds to finance projects with climate benefits, in line with its initial commitments.
 - The overall implementation of the issuer's commitments in terms of projects' ESG management and evaluation, selection and allocation processes is robust.
 - The assessment and reporting framework appears relevant. We provide an overall reasonable level of assurance on the issuer's capacity to report on fund allocation and on projects results (i.e. climate benefits and ESG performance), in line with its initial commitments, and on results aggregated at bond level. We consider that the project results in terms of climate benefits and ESG performance range from limited to robust.
 - No ESG controversy have been observed related to the selected projects.

¹ This opinion is to be considered as the "Consultant review" described by the Green Bond Principles (2016 edition in the 'External Review' section). The Green Bond Principles include the Voluntary Process Guidelines for Issuing Green Bonds and the Guidance for Issuers of Social Bonds (see: www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/)

² Definition of Vigeo Eiris' scales of assessment (as detailed on the last page of this document):

Level of Performance: Advanced, Robust, Limited, Weak. Level of Assurance: Reasonable, Moderate, Weak.



Part I. ISSUER

Level of the Issuer's ESG performance

As of December 2016, the City of Paris' overall sustainability performance has been stable since Vigeo Eiris's last review (December 2015) and continues to be advanced, above average scores in all domains. The City leads the sector out of 29 in the "Local authorities" Vigeo Eiris sector.

City of Paris achieves advanced performance in the Social and Environmental pillars, while in the Governance pillar, its score is robust. In particular, performance is advanced on all domains under review, but Procurement and Services and Human Rights for which it is considered as robust.

The City registers its best performances (strength areas) on some environmental issues: environmental strategy, management of green areas and protection of biodiversity and management of environmental impacts from both transportation and energy use. The City also performs in an advanced way on some social issues: social cohesion and fair development, non-discrimination and improvement of health and safety. Reversely, room for improvement lies in the fields of integration of environmental and social factors in the supply chain, as well as in water management. In addition, the City faced corruption and environmental allegations, on which it nonetheless proves transparent or remediative overall.

Stakeholder-related ESG controversies and involvement in controversial activities

As of December 20th 2016, City of Paris faced occasional controversies mainly related to local pollution and corruption, where severity is considered high. The City is reactive on most cases and announced remedial actions for impacted stakeholders in response to these controversies.

The City of Paris is not involved in any of the 9 controversial activities³ analysed by Vigeo Eiris.

Part II. ISSUANCE

Use of proceeds

Up to date, 8 projects have been selected as eligible by the issuer, corresponding to 3 of the 4 defined eligible project categories (reduction of GHG emissions, energy efficiency and adaptation to climate change), representing 295 m€ of proceeds planned to be invested in these projects, i.e. 98% of the total proceeds. According to the issuer, the remaining 5m€ (2%) corresponds to unallocated proceeds up to date and will be allocated to projects related to the production of renewable energy and energy recovery, without providing detailed information on project sub-categories.

Vigeo Eiris provides a reasonable level of assurance on the issuer's capacity to use the bond proceeds to finance projects with climate benefits, in line with its initial commitments. All projects are in coherence with the categories and sub categories initially defined by the City of Paris, in line with Paris' "Climate & Energy Plan", and our overall level of assurance related to ESG selection criteria is reasonable.

Process for project evaluation and selection

The evaluation and selection of projects appear to be efficiently implemented, based on internal expertise.

The evaluation and selection process hase been coordinated by the Direction des Finances et des Achats (DFA). A list of pre-selected eligible projects has been established by all the representatives from the involved operational directions, based on the Term Investments Plan "Plan d'investissements de la mandature (PIM)" 2014-2020, and considering their alignement with the Climate Bond framework, espaciallty their significant climate benefits and the ability of the Agence d'Ecologie Urbaine to measure them.

Based on that list, the elected deputy mayor in charge of Finance, has validated the selection of eligible projects to be financed by the proceeds of the Climate Bond, in cooperation with other concerned deputy mayors. However, the list of eligible projects has not been updated at least on a semi-annual basis, as initially planned.

We have an overall reasonable level of assurance on the issuer's capacity to implement the evaluation and selection process, in line with its initial commitments.

Management of proceeds

The net proceeds of the Climate Bond issuance are managed within City of Paris' treasury liquidity portfolio, in cash or other liquidity instruments. The share total amount of selected eligible projects VS the total amount of the net proceeds is estimated at 98%, financing only current and future projects.

The information provided by the issuer on the specific measures undertaken as part of the annual financial audit process to track the invested amounts is partial. No project divestment has been observed within the year under review.

We have an overall reasonable level of assurance on the issuer's capacity to implement the allocation process, in line with its initial commitments.

³ Controversial activities analyzed by Vigeo Eiris: Alcohol, Animal maltreatment, Armament, Hazardous chemicals, Gambling, GMOs in food & feed, Nuclear energy, Sex industry, Tobacco.



Reporting

The assessment and reporting framework appears relevant on the majority of indicators. We have recommended to complete some of them and to review the definition or collection method to ensure the systematic collection on all indicators.

- Issuer's capacity to report
 - The indicators on fund allocation are well reported both at project and bond levels: the list of projects financed includes their description and the corresponding allocated amount, and the allocated amounts vs. total amount are disclosed. We provide a reasonable level of assurance on the Issuer's capacity to report on fund allocation for all projects selected up to date.
 - Regarding project results, the Issuer disclosed information at project level and aggregated information on climate benefits at bond level (except for 1 project still at preliminary phase). We have partial visibility on methodologies and sources of information used to estimate the CO₂ emissions. Our level of assurance regarding the issuer's capacity to report on projects results (i.e. climate benefits and ESG performance), in line with its initial commitments, is overall reasonable with disclosed information on 7 projects which correspond to 83% of the allocated proceeds.

It is noteworthy that due to an issuance of the Climate Bond in November 2015, this first annual report covers only the last quarter of 2015, which explains that some reporting indicators are partially disclosed or not accessible if the project is still at preliminary stage of conception.

- Project results
 - Based on disclosed information on projects results, we consider that the results in terms of climate benefits range from limited to robust. In particular, project results are considred to be robust for 3 projects (43% of allocated proceeds), above the annual objective in terms of energy savings or in line with annual objective in terms of number of housings and trees, and to be limited for 3 projects (32% of allocated proceeds) due to lack of trend or comparison data. Of note, the issuer did not disclose any information on climate benefits for 2 projects (23% of allocated proceeds).
 - In terms of ESG performance, we consider that the results range from limited to robust. In particular, project results are considered to be robust for 6 projects (77% of allocated proceeds), and to be limited for 1 project (13% of allocated proceeds) due to lack of information and absence of relevant measures. Of note, the issuer did not disclose any information on ESG management for 1 project (8% of allocated proceeds).
 - No controversy identified on all projects which are already selected

Paris, December 26th, 2016

Muriel CATON Director of Vigeo Eiris Enterprise

Laurie CHESNE Sustainability Consultant

Disclaimer

Transparency on the relation between Vigeo Eiris and the Issuer: Vigeo Eiris has executed audit activity for the City of Paris until so far (as Second party Opinion provider in September 2015). No established relationship (financial or others) exists between Vigeo Eiris and the City of Paris.

This opinion aims to explain for investors why the Green Bond is considered as sustainable and responsible, based on the information which has been made available to Vigeo Eiris and which has been analysed by Vigeo Eiris. Providing this opinion does not mean that Vigeo Eiris certifies the materiality, the excellence or the irreversibility of the projects refinanced or financed by the Green Bond. The City of Paris is fully responsible for attesting the compliance with its commitments defined in its policies, for their implementation and their monitoring. The opinion delivered by Vigeo Eiris neither focuses on financial performance of the Green Bond, nor on the effective allocation of funds' use of proceeds. Vigeo Eiris is not liable for the induced consequences when third parties use this opinion either to make investments decisions or to make any kind of business transaction. The opinion delivered on stakeholder-related social responsibility controversies is not a conclusion on the creditworthiness of tge City of Paris or its financial obligations.



METHODOLOGY

In Vigeo Eiris' view, Environmental, Social and Governance/Institution (ESG) factors are intertwined and complementary and cannot be separated when assessing the management of ESG in any organization or in any activity, including the issuance of bonds.

In this sense, Vigeo Eiris writes an opinion on the Issuer's sustainability as an organisation, and on the objectives, the management and the reporting of the disbursements financed by this transaction.

Vigeo Eiris' methodology to define and to assess corporate ESG performance is based on criteria aligned with public international standards and organized in 6 domains: Environment, Human Resources, Human Rights, Community Involvement, Business Behavior and Corporate Governance. The evaluation framework has been customized regarding material issues, based on the Local Authorities assessment framework and specificities inherent to the worldwide markets and emerging issues.

Vigeo Eiris reviewed information provided by the issuer, press content providers and stakeholders (access to the content of 28,500 publications worldwide from reference financial newspapers to sector-focused magasines, local publications or Non-Government Organisations). Information gathered from these sources will be considered as long as they are public, documented and traceable. Vigeo Eiris has reviewed documents related to the bond reporting (project description, environmental and social indicators, climate benefits ...).

Part I. ISSUER

Level of the issuer's ESG performance:

City of Paris has been evaluated by Vigeo Eiris, during December 2016 on its social responsibility performance, based on 24 relevant ESG drivers organized in the 6 sustainability domains, according to the Local Authorities assessment framework. City of Paris' sustainability performance have been assessed by Vigeo Eiris on the basis of three "items":

- Leadership: relevance of the comitments (content, visibility and ownership)
- Implementation: coherence of the implementation (process, means, control/reporting)
- <u>Results</u>: indicators, stakeholders feedbacks and controversies
- Scale for assessment of ESG performance: Advanced, Robust, Limited, Weak.

Stakeholder-related ESG controversies and disputable activities:

A controversy is information, a flow of information, or contradictory opinions that are public, documented and traceable, allegation against an issuer on corporate responsibility issues. Such allegations can relate to tangible facts, be an interpretation of these facts, or constitute an allegation on unproven facts.

Vigeo Eiris provides an opinion on companies' controversies risk mitigation based on the analysis of three factors :

- <u>Severity</u>: the more a controversy will relate to stakeholder's fundamental interests, will prove actual corporate responsibility in its occurrence, and will have adverse impacts for stakeholders and the Company, the highest its severity. Severity assigned at corporate level will reflect the highest severity of all cases faced by the Company (scale: Minor, Significant, High, Critical);
- <u>Responsiveness</u>: ability demonstrated by an issuer to dialogue with its stakeholders in a risk management perspective and based on explanatory, preventative, remediating or corrective measures. At corporate level, this factor will reflect the overall responsiveness of the Company for all cases faced (scale: Proactive, Remediate, Reactive, Non Communicative);
- <u>Frequency</u>: reflects for each ESG challenge the number of controversies faced. At Corporate level, this factor reflects on the overall number of controversies faced and scope of ESG issues impacted (scale: Isolated, Occasional, Frequent, Persistent).

The impact of a controversy on a company's reputation reduces with time, depending on the severity of the event and the company's responsiveness to this event. Conventionally, Vigeo Eiris' controversy database covers any controversy with Minor or Significant severity during 24 months after the last event registered and during 48 months for High and Critical controversies.

Part II. ISSUANCE

Project review

The analysis of the conformance with initial commitments covers both the eligibility criteria, based on the definition of eligible project categories (use of proceeds requirements), and the selection criteria, based on the ESG commitments defined in the Climate Bond framework.

Scale for assessment of level of assurance: weak, moderate, reasonable



The analysis of the existence and completeness of reporting, according to initial commitments defined at project level, based on the three following components:

- Fund allocation, reporting on the use of proceeds, considered as a primary component and mandatory to achieve reasonnable level of assurance at project level
- Climate benefits, reporting on output and impact indicators, considered as a primary component and mandatory to achieve reasonnable level of assurance at project level
- ESG management, reporting on additional qualitative and quantitative indicators, considered as a best-practice effort and less optional to achieve reasonnable level of assurance at project level
- Scale for assessment of level of assurance: weak, moderate, reasonable

Bond review

.

The analysis of the implementation of bond processes covers both

- The evaluation and selection process, i.e. evaluation of the coherence and efficiency of the implemented process, and exhaustiveness of the ESG issues covered
- The allocation process, based on the definition of the rules for management of proceeds
- Scale for assessment of level of assurance: weak, moderate, reasonable

The analysis of the existence and completeness of reporting, according to initial commitments defined at bond level, based on the three following components:

- Fund allocation, reporting on the aggregated use of proceeds, considered as a primary component and mandatory to achieve reasonnable level of assurance at project level
- Climate benefits, reporting on aggregated output and impact indicators, considered as a primary component and mandatory to achieve reasonnable level of assurance at project level
- ESG management, reporting on transversal additional indicators, considered as a best-practice effort and less optional to achieve reasonnable level of assurance at project level
- Scale for assessment of level of assurance: weak, moderate, reasonable

Reporting

The analysis of the relevance of reporting indicators covers the three reporting components, i.e. fund allocation, climate benefits and ESG management, evaluated the relevance of these indicators according to three principles (transparency, exhaustiveness and effectiveness), and the reporting conditions, i.e. format, visibility, data collection,...

Applied scale for level of relevance: not relevant, partially relevant, relevant

The evaluation of project results is conducted both at project and bond levels, including reporting per project and aggregated reporting, based on both climate benefits, considered as essential to achieve robust performance, and ESG management, considered as a best-practice effort and less optional to achieve robust performance.

Scale for assessment of performance: weak, limited, robust, advanced.

VIGEO EIRIS' ASSESSMENT SCALES

Performance evaluation		
Advanced	Advanced commitment; strong evidence of command over the issues dedicated to achieving the objective of social responsibility. Reasonable level of risk management and using innovative methods to anticipate emerging risks	
Robust	Convincing commitment; significant and consistent evidence of command over the issues. Reasonable level of risk management	
Limited	Commitment to the objective of social responsibility has been initiated or partially achieved; fragmentary evidence of command over the issues. Limited to weak level of risk management	
Weak	Commitment to social responsibility is non-tangible; no evidence of command over the issues. Level of insurance of risk management is weak to very weak	

Level of assurance				
Reasonable	Able to convincingly conform to the prescribed principles and objectives of the evaluation framework			
Moderate	Compatibility or partial convergence with the prescribed principles and objectives of the evaluation framework			
Weak	Lack or unawareness of, or incompatibility with the prescribed principles and objectives of the evaluation framework			

Vigeo SAS

Les Mercuriales 40 rue Jean Jaurès 93170 Bagnolet – France +**33 (0) 1 55 82 32 40** *contact@vigeo.com*

Boston Brussels contact@vide

Casablanca Lon contact@vigeo.com info@

London info@eiris.org

Milan I italia@vigeo.com Santiago

contact@vigeo.com

Tokyo contact@vigeo.com

www.vigeo-eiris.com