

ANNUAL REVIEW¹

OF CITY OF PARIS' CLIMATE BOND REPORTING 2019

August 2020

SCOPE

In 2015, Vigeo Eiris was commissioned to provide an independent opinion (thereafter "Second Party Opinion" or "SPO") on the sustainability credentials and management of the Climate Bond² (the "Bond") to be issued by City of Paris (the "Issuer" or the "City"). We delivered our final SPO on September 30th, 2015.

As of today, Vigeo Eiris has been commissioned by City of Paris to provide an independent opinion (or "Review") on its Climate Bond reporting 2019 (the "Report 2019"), which covers the 2018 period. Vigeo Eiris has already provided an opinion on City of Paris' Climate Bond reporting 2016 and 2017.

Our Review is established according to Vigeo Eiris' Environmental, Social and Governance ("ESG") exclusive assessment methodology and to the ICMA's Green Bond Principles ("GBP") edited in 2017.

Our opinion is built on the review of the following components:

- 1) **Issuer:** we assessed the Issuer's ESG performance³, and its management of potential stakeholder-related ESG controversies.
- 2) **Issuance:** we assessed the Climate Bond annual Reporting 2019, including:
 - ▶ Project review: evaluation of the Issuer's capacity to use the Bond's proceeds to finance projects with sustainability 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's processes, in line with its initial commitments (evaluation and selection process and allocation process) and to report on the Bond's results; analysis of the aggregated Bond's results.

Our sources of information are multichannel, combining data from (i) public sources, press content providers and stakeholders, (ii) information from Vigeo Eiris' exclusive ESG rating database, and (iii) information provided by the Issuer through documents and interviews conducted with the Issuer's managers and stakeholders involved in the Bond's issuance, held *via* teleconference.

We carried out our due diligence assessment from July 28th to August 25th, 2020. We consider that we were provided with access to all the appropriate documents and interviewees we solicited. To this purpose we used our reasonable efforts to verify such data accuracy.

VIGEO EIRIS' OPINION

Vigeo Eiris is of the opinion that the Climate Bond reporting 2019 issued by City of Paris is still aligned with the eligibility criteria as initially defined in the Issuer's Framework.

Vigeo Eiris express a reasonable level of assurance⁴ (our highest level of assurance) on the Issuer's commitments and on the Bond's contribution to sustainability.

1) Issuer (see Part I):

- ▶ City of Paris continues to display an overall advanced ESG performance. As of December 2019 (last updated rating of the Issuer's ESG performance), City of Paris is ranking 2nd in our "Public Authorities" sector which covers 29 local authorities. The Issuer's managerial approach appears advanced in the Environmental pillar, while it's considered good in the Social and Governance pillars.
- ▶ As of December 2019, City of Paris is facing one controversy. This controversy is related to the Environment domain. The frequency of the controversy is considered isolated. The severity of its impact on both the local authorities and its stakeholders is considered high. City of Paris is considered reactive.

¹ This opinion is to be considered as the "Annual review" described in the GBP voluntary guidelines edited by the International Capital Market Association (www.icmagroup.org).

² The "Climate Bond" is to be considered as the bond to be potentially issued, subject to the discretion of the Issuer. The name "Climate Bond" has been decided by the Issuer: it does not imply any opinion from Vigeo Eiris.

³ The Issuer's ESG performance was assessed in December 2019 by a complete process of rating and benchmark developed by Vigeo Eiris. Potential evolutions and data published after this date are not included in this rating.

⁴ Definition of Vigeo Eiris' scales of assessment (as detailed in the Methodology section):

- Level of Evaluation: Advanced, Good, Limited, Weak.
- Level of Assurance: Reasonable, Moderate, Weak.

2) Issuance (see Part II):

The Issuer has described the main characteristics of the management of its 2015 Climate Bond within a Climate Bond Reporting 2019 which covers the 2018 period (the last version of this Report was provided to Vigeo Eiris on August 25th, 2020).

At bond level, we reach a reasonable assurance on the Issuer's capacity to respect its initial reporting commitments: the reporting has been made annually, the projects' main sustainability benefits indicators are aggregated at bond level (e.g. tCO₂e avoided per year), however the reporting is not yet available on the Issuer's website.

At project level, we express a reasonable assurance on the Issuer's capacity to report on the allocation and on the sustainability benefits of its Bond, in line with its initial commitments.

- **Use of proceeds:** We reach a reasonable level of assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments. In its Report 2019, the Issuer reported on nine financed projects, all of them corresponding to Eligible categories and sub-categories as initially defined by City of Paris.
- **Funds allocation:** We reach a reasonable assurance on the Issuer's capacity to report on the allocation of the Bond's proceeds in line with its initial commitments. In the Issuer's Report 2019, all the financial indicators per category are reported. The list of financed projects includes their description and the corresponding allocated amount for 2018, for all the projects. The Issuer has reported the amounts invested at bond level.
- **Sustainable benefits:** We reach a reasonable assurance on the capacity of the Issuer to report on the climate benefits of the financed projects in line with its initial commitments. The Issuer disclosed for all the projects, the social/environmental benefits at category and/or project level, in accordance with its initial commitments.
- **ESG Management:** We reach a reasonable assurance on the Issuer's capacity to report on the ESG management of the financed projects in line with its initial commitments.
- **Projects results:** We are of the opinion that the projects results are overall good. We consider that the projects results in terms of environmental and social benefits range from limited (five projects), good (four projects) to advanced (two projects).

This Annual Review is based on the review of City Of Paris' Climate Bond Reporting 2019 and information provided by the Issuer, according to our exclusive assessment methodology and to the GBP 2018.

Paris, August 25th, 2020

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Disclaimer

Transparency on the relation between Vigeo Eiris and the Issuer: Vigeo Eiris has carried out five audit missions for City of Paris until so far (2 SPOs and 3 annual reviews). No established relation (financial or commercial) exists between Vigeo Eiris and the Issuer.

This opinion aims at providing an independent opinion on the sustainability credentials and management of the Bond, based on the information which has been made available to Vigeo Eiris. Vigeo Eiris has neither interviewed stakeholders out of the Issuer's employees, nor performed an on-site audit nor other test to check the accuracy of the information provided by the Issuer. The accuracy, comprehensiveness and trustworthiness of the information collected are a responsibility of the Issuer. The Issuer 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 the financial performance of the Bond, nor on the effective allocation of its 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.

Restriction on distribution and use of this opinion: The deliverables remain the property of Vigeo Eiris. The draft version of the Opinion is for information purpose only and shall not be disclosed by the client. Vigeo Eiris grants the Issuer all rights to use the final version of the opinion delivered for external use via any media that the Issuer shall determine in a worldwide perimeter. The Issuer has the right to communicate to the outside only the opinion complete and without any modification, that is to say without making selection, withdrawal or addition, without altering it in any way, either in substance or in the form and shall only be used in the frame of the contemplated concerned bond(s) issuance. The Issuer acknowledges and agrees that Vigeo Eiris reserves the right to publish the final version of the opinion on Vigeo Eiris' website and on Vigeo Eiris' internal and external communication supporting documents.

DETAILED RESULTS

Part I. ISSUER

Paris is the administrative and economic capital of France. It is located at the heart of the Ile-de-France Region. City of Paris has a dual administrative status, it is a municipality and a "département", which is a unique situation in France. City of Paris has an estimated population of 2.16 M inhabitants (2018), and it covers a total area of about 105 square kilometres.

Level of ESG performance

The Issuer's ESG performance was assessed through a complete process of rating and benchmark.

As of December 2019 (date of last updated ESG rating), City of Paris displays an overall good ESG performance, ranking 2nd in our "Local Authorities" sector which covers 29 local authorities.

Domain	Comments	Opinion
Environment	City of Paris' performance in the Environment pillar is advanced. City of Paris is committed to address all the relevant environmental challenges on its territory, through its engagement in the Agenda 21 and has formalised its specific guidelines such as the "Plan Local d'Urbanisme", the "Plan de Déplacements de Paris" or the "Plan Climat". City of Paris is committed, through its signature of the "Regional Charter for Biodiversity" in 2004, to integrate biodiversity in its strategy and has set measures such as the development of new protected/green areas and monitoring of endangered species. City of Paris is engaged to collect rainwater, and design constructions in this view. The City Plan called "Swim in Paris" aims at reducing by 10% water consumption for all public swimming pools. City of Paris has set the following targets by 2050: become a 100% recovered energy area, with 20% being generated locally, cut energy consumption by 50% throughout the city. These targets are backed by a renovation program for buildings and energy consumption monitoring tools. However, energy consumption data from local authority and public sources regarding emissions linked to energy consumption is insufficient to identify a consumption trend.	Advanced
	In terms of waste management, the City's performance is considered good, significant means are in place to such as monitoring systems for waste production or systems to reduce the territory's impacts. However, the City remains globally silent concerning recycling and hazardous waste treatment and production. City of Paris commitment relative to controlling its local pollution focuses on all relevant sources of local pollution, namely: noise, odours, air quality and landscape aesthetics.	Good
	Concerning environmental impacts from transportation, City of Paris has set the targets to reduce by 43% GHG vehicles emissions and by 30% fuel consumption by 2020. In addition, to meet the 2020 objectives of the Climate Plan, the City targets to: reach 5% of electric vehicles and 15% of hybrid vehicles in its fleet, reduce by 10% total mileage of professional travels, train 90% of city agents using a public vehicle to eco-driving, reach 20% of professional travels by bike, reduce by 15% vehicles emissions linked to waste collection. However, the lack of reported data concerning the public transport mix and the energy consumption or CO ₂ emissions related to goods or passengers' transportation of the territory is insufficient to determine a trend.	Limited
		Weak
Social	City of Paris' performance in the Social pillar is good. City of Paris states it is committed to strengthen social dialogue through information and consultation of union representatives. The commitment is supported by a dedicated structure: Human Resources Unit and the dedicated Bureau for Social Relations. However, the City lacks disclosed measures to support this commitment.	Advanced
	City of Paris is committed to promote employment in its "Les 10 engagements de la Ville de Paris en faveur du développement économique et du soutien à l'emploi" and the Parisian plan for insertion through employment 2020. An internal job opportunity marketplace is in place. Moreover, employees have regular performance assessment and career counselling interviews. Nevertheless, information on training and on the turnover rate is insufficient to identify a trend.	Good

	<p>City of Paris has made a formalised commitment to health and safety issues in its Framework agreement. However, the accident severity and frequency rates as well as data on absenteeism have not been updated since 2016.</p> <p>City continues to disclose a formalised commitment to address non-discrimination backed with comprehensive measures. Moreover, the City's commitment generally addresses freedom of association and the right to collective bargaining and reports on some permanent measures, such as ongoing monitoring. Finally, the City has issued a formalised commitment to respect and promote human rights in society in its Charter on CCTV Ethics, yet measures do not appear to be disclosed.</p> <p>The City continues to disclose formalised commitments to address territorial planning and sustainable development of the territory as well as social cohesion and fair development backed up with some measures. Moreover, disclosed KPIs (for instance money spent on social aid or the unemployment rate) show a positive trend over the past three years.</p>	Limited
		Weak
Governance	<p>City of Paris' performance in the Governance pillar is Good.</p> <p>The City is transparent on its efforts to ensure adequate representative democracy. Participative democracy continues to constitute the City's strength along with its strong internal controls system. Many participative instances have been created, and the population's participation is regularly and innovatively solicited on a wide range of issues. However, there is a lack of disclosure of the attendance rate at local council meetings.</p> <p>Concerning the prevention of corruption, the City's performance remains limited. City of Paris has issued a formalised commitment to preventing corruption in its Professional Deontology Guidelines for Paris Agents and Code of Ethics in Purchasing which address its main responsibilities, however City of Paris has not disclosed quantitative data on the corruption incidents.</p>	Advanced
		Good
		Limited
		Weak

Management of stakeholder-related ESG controversies

As of December 2019, City of Paris is facing one stakeholder-related ESG controversy, namely:

- "Paris mayor accused of lying about lead concentration in schools caused by Notre Dame fire" (18/07/2019)

This controversy is linked to one of the six domains we analyse:

- Environment, in the criterion "Prevention and management of industrial risks and natural disasters"

Frequency: The controversy is considered isolated.

Severity: The severity of its impact on both the local authorities and its stakeholders is considered high.

Responsiveness: City of Paris is considered reactive.

Part II. ISSUANCE

The 2015 Climate Bond issuance has been assessed based on the existence and completeness of the reporting, according to the Issuer's initial commitments made in its 2015 Framework.

At bond level, we reach a reasonable assurance on the Issuer's capacity to respect its initial reporting commitments.

The Issuer's initial commitments are fulfilled in terms of reporting on the financed projects, on the fund allocation, on the sustainability benefits, on the ESG management and regarding the results of the projects. However, it appears that one commitment is not respected in the Report 2019:

- the reporting is not yet available on the Issuer's website.

At category level, we express a reasonable assurance on the Issuer's capacity to report on the allocation and on the sustainability benefits of its Bond, in line with its initial commitments.

Use of proceeds

We reach a reasonable level of assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments.

In its Report 2019, the Issuer reported on nine financed projects, all of them corresponding to Eligible Categories and sub-categories as initially defined by City of Paris.

City of Paris' 2015 Framework		Vigeo Eiris' Analysis on the coherence between the Framework's commitments and the selected projects
Eligible Categories	Reported financed projects in the Report 2019	
<p>Reduction of GHG emissions</p> <p>Projects aiming at developing low-carbon energy transport (bicycle, electric vehicles, etc.) and public transport</p> <p><u>Sub-categories and examples of projects</u></p> <ul style="list-style-type: none"> - Public transport : High Quality Transit Line, tramway line extension - Alternative transport: cycling Plan - Electric vehicles: support to the development of electric cars for residents and professionals, network of charging stations for electric and GNV vehicles 	<p>Public transport</p> <p>Extension of tram line (T3 Chapelle-Asnières)</p> <p>Conversion of the fleet of sanitation vehicles from diesel or gasoline to cleaner energy</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Reduction of GHG emissions" and sub-category "Public transport".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments.</p>
	<p>Electric vehicles</p> <p>Conversion of the fleet of sanitation vehicles from diesel</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Environmental Eligible Project Category "Reduction of GHG Emissions" under the eligible sub-category "Electric vehicles: Conversion of the fleet of sanitation vehicles from diesel", defined in the Issuer's Framework.</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments.</p>
	<p>Alternative transport</p> <p>Cycle paths</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Reduction of GHG emissions" and sub-category "Alternative transport".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments.</p>
	<p>Electric vehicles</p> <p>Installation of Belib' charging stations</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Reduction of GHG emissions" and sub-category "Electric vehicles".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments.</p>
<p>Energy efficiency</p> <p>Projects aiming at reducing the energy consumption of buildings and public lighting, while maintaining equivalent level of service (existing situation or vs. standard), with performance goals and energy poverty focus</p> <p><u>Sub-categories and examples of projects</u></p> <ul style="list-style-type: none"> - Buildings: construction of energy efficient buildings, thermal insulation for buildings (schools, social housing, nursing homes, etc.) - Public lighting and signals: replacement of energy consuming appliances - Renovation of heating systems 	<p>Buildings</p> <p>Sustainable social housing (HEQ construction, thermal insulation)</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Energy efficiency" and sub-category "Buildings".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments.</p>
	<p>Public lighting and signals</p> <p>Energy performance contract concerning high performance public lighting</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Energy efficiency" and sub-category "Public lighting and signals".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments.</p>

<p>Renewable energy</p> <p>Projects aiming at developing local renewable energy production and/or energy recovery</p> <p><u>Sub-categories and examples of projects</u></p> <ul style="list-style-type: none"> - Renewable energy power plants (solar panels) - Geothermal energy - Energy recovery (from wastewater networks, data centers, etc.) - STEGC's Heating network 	<p>Renewable energy power plants</p> <p>Photovoltaic solar panels</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Renewable energy" and sub-category "Renewable energy power plants".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments</p>
<p>Adaptation to climate change</p> <p>Projects aiming at reducing the impacts of climate change, especially the heat island effect, through the expansion of green area surfaces in Paris</p> <p><u>Sub-categories and examples of projects</u></p> <ul style="list-style-type: none"> - New green areas: areas opened to the public, green roofs, facades and walls - Tree planting programmes 	<p>New green areas</p> <p>30 new hectares of green areas</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Adaptation to climate change" and sub-category "New green areas".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments</p>
	<p>Tree planting programmes</p> <p>20,000 trees</p>	<p><u>Eligibility and selection criteria:</u></p> <p>This project corresponds to the Eligible Project Category "Adaptation to climate change" and sub-category "Tree planting programme".</p> <p>We reach a reasonable assurance on the Issuer's capacity to use the Bond's proceeds to finance projects with climate benefits, in line with its initial commitments</p>

Fund allocation

We reach a reasonable assurance on the Issuer's capacity to report on the allocation of the Bond's proceeds, in line with its initial commitments.

According to the Issuer's Report 2019, all relevant financial indicators per category are reported:

- List of projects financed by the proceeds, including their description (date, location, category, progress)
- Amounts invested (in m EUR)
- Allocated amount vs. total amount

The list of the financed projects includes their description and the corresponding allocated amount invested for the years 2015-17 and 2018, for all the projects.

The Issuer has reported the amounts of proceeds invested at bond level.

Sustainable benefits

We reach a reasonable assurance on the capacity of the Issuer to report on the climate benefits of the financed projects, in line with its initial commitments.

The Issuer disclosed all the social/environmental benefits at category and/or projects level, in accordance with its initial commitments for all the projects.

Our assurance is:

- Reasonable for all nine financed projects (representing 100% of the allocated proceeds), namely:
 - "Extension of tram line (T3 Chapelle-Asnières)": The selected indicators on both environmental and social benefits are disclosed: the number of passengers per day estimated at 210,000 passengers/day after 5 months, 4.3 km of line created and the GHG emissions reduction is estimated at 8,626 tCO₂e avoided per year. In addition, the Issuer has disclosed an additional indicator on social benefits: 48,159 hours of integration work were provided as of 31/12/2018.
 - "Conversion of the fleet of sanitation vehicles from diesel": The selected indicators on environmental benefits are disclosed: 70 electric vehicles, 2 hybrid vehicles, and 34 NGV vehicles, and 375 tCO₂e avoided per year.
 - "Cycle paths": The selected indicators on environmental benefits are disclosed: 148.5 km of cycle path since 2015 (91,5 km in 2018) and 14,850 t.CO₂ avoided per year (9,150 t.CO₂ due to 2018's delivery). The selected indicators on environmental benefits are disclosed: 148.5 km of cycle path since 2015 (91,5 km in 2018) and 14,850 t.CO₂ avoided per year (9,150 t.CO₂ due to 2018's delivery). In addition, the Issuer has disclosed an additional indicator on social benefits: 36,445 hours of integration work were provided as of 31/12/2018.
 - "Installation of Belib' charging stations": The selected indicators on environmental benefits are disclosed: 88 stations financed since 2015 (28 in 2018) which is equivalent to 264 terminals, 920 tCO₂e avoided per year due to 2018 delivery.
 - "Sustainable social housing (HEQ constructions, thermal insulation)": The selected indicators on environmental benefits are disclosed: 45,787 units renovated since 2015 (4,656 in 2018), 77,375 MWh/year equivalent to 12,760 tCO₂e avoided per year. In addition, the Issuer has disclosed additional indicators on environmental benefits: 6,585 m² new organic surfaces created in 2018 and 57% average improvement in energy consumption (i.e 191 kWh/m²/year).
 - "Energy Performance contract (MPE)": The selected indicators on environmental benefits are disclosed: 4,261 MWh saved in 2018, 274 tCO₂e avoided in 2018. In addition, the Issuer has disclosed an additional indicator on environmental benefits: 404 tonnes of waste recycled. In addition, the Issuer has disclosed an additional indicator on social benefits: 29,293 hours of integration work were provided as of 31/12/2018.
 - "Solar energy: Photovoltaic solar": The selected indicators on environmental benefits are disclosed: 5,000 m² of panels installed since 2015, 514 MWh produced per year equivalent to 5 tCO₂e avoided per year.
 - "30 new hectares of green spaces": The selected indicators on environmental benefits are disclosed: 10,93 ha of new green spaces have been delivered since 2015 (0,7 ha in 2018). In addition, the Issuer has disclosed an additional indicator on environmental benefits: 108,01 tCO₂e avoided during the period (40,88 tCO₂e in 2018).
 - "20,000 trees": The selected indicators on environmental benefits are disclosed: 11,690 trees have been planted since 2015 (3,343 in 2018). In addition, the Issuer has disclosed

additional indicators on environmental benefits: 8,530 tCO₂e will be avoided during the lifespan of the already planted trees (2,440 tCO₂ due to 2018 new trees). In addition, the Issuer has disclosed an additional indicator on social benefits: 425 hours of integration work were provided as of 31/12/2018.

ESG management of the Projects

We reach a reasonable assurance on the Issuer's capacity to report on the ESG management of the financed projects, in line with its initial commitments.

The Issuer has disclosed most of the selected indicators on ESG management at project level (qualitative and quantitative information is provided on the respect of human rights, responsible procurement, energy and air management etc.).

Our assurance is:

- Reasonable for seven financed projects (representing 96% of allocated proceeds), namely:
 - "Extension of tram line (T3 Chapelle-Asnières)": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering energy consumption, air quality, eco-design, waste management, responsible procurement and social cohesion.
 - "Cycle paths": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering energy consumption, air quality, eco-design, waste management, responsible procurement and social cohesion.
 - "Installation of Belib' charging stations": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering air quality management, eco-design, energy consumption management, waste management, social cohesion, responsible procurement, and local development.
 - "Sustainable social housing (HEQ constructions, thermal insulation)": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering air quality management, eco-design, energy consumption management, waste management, social cohesion, responsible procurement, and circular economy and low carbon sites.
 - "Energy Performance contract (MPE)": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering air quality management, biodiversity, eco-design, energy consumption management, waste management, social cohesion, responsible procurement, and fight against discrimination.
 - "30 new hectares of green spaces": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering air quality management, eco-design, biodiversity, waste management, social cohesion, responsible procurement and local development and interactions.
 - "20,000 trees": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering air quality management, eco-design, biodiversity, energy consumption management, waste management, social cohesion, responsible procurement.
- Moderate for two financed projects (representing 4% of allocated proceeds), namely:
 - "Conversion of the fleet of sanitation vehicles from diesel": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering energy consumption, air quality, responsible procurement and social cohesion. No information is disclosed considering waste management, and sustainable local development of territories.
 - "Solar energy: Photovoltaic solar": The Issuer has disclosed the selected indicators to evaluate the project performance on ESG management covering air quality, eco-design, biodiversity, waste management and social cohesion. No information is disclosed considering responsible procurement and sourcing.

The ESG management guidelines are disclosed at bond level.

Results of the Projects

We are of the opinion that the projects results are overall good. We consider that the projects results in terms of environmental and social benefits range from limited (five projects), good (four projects) to advanced (two projects).

In particular, we consider the projects' results to be:

- advanced for two projects (representing 38% of allocated proceeds), namely:
 - "Installation of Belib' charging stations": The Issuer has set the following targets: 270 terminals financed by July 2018 and 2,960 tCO₂e avoided per year.
 - "Sustainable social housing (HEQ constructions, thermal insulation)": The Issuer has set the following targets: 4,500 social housing units renovated per year and improve average energy efficiency by 60%. 4,656 social housing units have been renovated in 2018 and 57% average improvement in energy consumption.
- good for four financed projects (representing 58% of allocated proceeds), namely:
 - "Extension of tram line (T3 Chapelle-Asnières)": The Issuer has set the following targets: length of created transport ways is disclosed (4,3 km), the ex-ante estimation of annual GHG emissions reduction of 8,700 tCO₂e and of 97,455,000 passengers.km. The Issuer has reported achieving 93,454,600 travellers/km/year and 8,626 tCO₂e/year.
 - "Energy Performance contract (MPE)": The Issuer has set the following target: annual saving of 4,617 MWh. 4,261 MWh have been saved in 2018.
 - "Cycle paths": The Issuer has set the following targets: ex-ante estimation of the annual GHG emissions reduction of 27,000tCO₂e/year, and adding 270 km of cycle path. 148.5 km of cycle path created since 2015 (91,5 km in 2018) and 14,850 t.CO₂ avoided per year (9,150 t.CO₂ due to 2018's delivery). The Issuer has forecasted to construct more than 120 km in 2019.
 - "30 new hectares of green spaces": The Issuer has set the following target: 30 ha of new green spaces by 2020. 10,93 ha have been created since 2015 which is below initial expectations. The methodology only reports the fully completed ha, 8 ha are planned to be delivered in 2019 as well as in 2020.
 - "20,000 trees": City of Paris has committed to deliver 20,000 trees from 2014 to 2020. 11,690 trees have been planted since 2015 which is below the initial expectations. The Issuer has forecasted to plant more than 3000 trees in 2019.
- limited for two financed projects (representing 4% of allocated proceeds), namely:
 - "Conversion of the fleet of sanitation vehicles from diesel": The project was firstly initiated with air emissions targets, the GHG emissions reduction is considered a co-benefit. Therefore, the Issuer has not quantified ex ante-benefits for GHG emissions. An area for improvement consists in providing ex-ante estimations of annual GHG emissions reduction.
 - "Solar energy: Photovoltaic solar": The Issuer has not quantified ex-ante benefits. An area for improvement consists in providing ex-ante estimations of annual GHG emissions reduction and installed capacity (MW).

The reporting has been made annually for the Bond. The projects' main sustainability benefits indicators are aggregated (e.g. tCO₂e avoided per year) at bond level. Lastly, the key methodologies and assumptions are disclosed in the "note on methodology" section of the Report 2019 for all projects. In addition, in the Report 2019 the projects results are aggregated at bond level.

An area for improvement consists in publishing the report on the Issuer's website.

Project	Level of assurance on the Issuer's capacity to use the proceeds for Eligible Projects	Level of assurance on the capacity of the Issuer to report on fund allocation	Level of assurance on the capacity of the Issuer to report on sustainability benefits	Level of assurance on the Issuer's capacity to report on the project ESG management	Project results in terms of climate benefits
01 – “ T3 tram line - Chapelle-Asnières Extension”	Reasonable	Reasonable	Reasonable	Reasonable	Good
02 – “Conversion of the fleet of sanitation vehicles from diesel”	Reasonable	Reasonable	Reasonable	Moderate	Limited
03 – “Cycle paths”	Reasonable	Reasonable	Reasonable	Reasonable	Good
04 – “Installation of Belib’ charging stations”	Reasonable	Reasonable	Reasonable	Reasonable	Advanced
05 – “Sustainable social housing (HEQ constructions, thermal insulation)”	Reasonable	Reasonable	Reasonable	Reasonable	Advanced
06 – “Energy Performance contract (MPE)”	Reasonable	Reasonable	Reasonable	Reasonable	Good
07 – “Solar energy: Photovoltaic solar”	Reasonable	Reasonable	Reasonable	Moderate	Limited
08 – “30 new hectares of green spaces”	Reasonable	Reasonable	Reasonable	Reasonable	Good
09 – “20,000 trees”	Reasonable	Reasonable	Reasonable	Reasonable	Good

METHODOLOGY

In Vigeo Eiris' view, Environmental, Social and Governance (ESG) factors are intertwined and complementary. As such they cannot be separated in the assessment of ESG management in any organization, activity or transaction. In this sense, Vigeo Eiris writes an opinion on the Issuer's Corporate Social Responsibility as an organization, and on the process and commitments applying to the intended issuance.

Vigeo Eiris' methodology for the definition and assessment of the corporation's ESG performance is based on criteria aligned with public international standards, in compliance with the ISO 26000 guidelines, and is organized in 6 domains: Environment, Human Resources, Human Rights, Community Involvement, Business Behaviour and Corporate Governance. Our evaluation framework of the material ESG issues have been adapted, based on our generic local authorities' ESG assessment frameworks and on specific issues considering the Issuer's business activity.

Our research and rating procedures are subject to internal quality control at three levels (analysts, heads of cluster sectors, and internal review by the audit department for second party opinions) complemented by a final review and validation by the Director of Methods. Our SPO are also subject to internal quality control at three levels (consultants in charge of the mission, Production Manager, and final review and validation by the Director of Sustainable Finance and/or the Director of Methods. A right of complaint and recourse is guaranteed to all companies under our review, following three levels: first, the team in contact with the company, then the Director of Methods, and finally Vigeo Eiris' Scientific Council.

All employees are signatories of Vigeo Eiris' Code of Ethics, and all consultants have also signed its add-on covering financial rules of confidentiality.

Part I. ISSUER

NB: The Issuer's level of ESG performance (i.e. commitments, processes, results of the Issuer related to ESG issues), has been assessed through a complete process of rating and benchmarking developed by Vigeo Eiris.

Level of the Issuer's ESG performance

City of Paris' ESG performance has been assessed by Vigeo Eiris on the basis of its:

- Leadership: relevance of the commitments (content, visibility and ownership).
- Implementation: coherence of the implementation (process, means, control/reporting).
- Results: indicators, stakeholders' feedbacks and controversies.

Management of stakeholder-related ESG controversies

A controversy is an information, a flow of information, or a contradictory opinion that is 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 based on unproven facts.

Vigeo Eiris reviewed information provided by the Issuer, press content providers and stakeholders (partnership with Factiva Dow Jones: access to the content of 28,500 publications worldwide from reference financial newspapers to sector-focused magazines, local publications or Non-Government Organizations). Information gathered from these sources is considered as long as it is public, documented and traceable.

Vigeo Eiris provides an opinion on companies' controversies risks mitigation based on the analysis of 3 factors:

- Frequency: 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).
- Severity: the more a controversy will relate to stakeholders' 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).
- Responsiveness: 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).

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 any Critical controversies.

Involvement in controversial activities

NB: The involvement in controversial activities has not been assessed in this Annual Review, as Vigeo Eiris' methodology on controversial activities does not cover local authorities.

Part II. ISSUANCE

The annual report 2019 has been evaluated by Vigeo Eiris according to the GBP and SBP 2017, to our methodology based on international standards and sector guidelines applying in terms of ESG management and assessment.

Projects Review

- Analysis of the conformance with initial commitments
 - Eligibility criteria based on the definition of eligible project categories (use of proceeds requirements)
 - Selection criteria based on the ESG commitments
- Analysis of the existence and completeness of reporting, according to initial commitments
 - Fund allocation
 - Sustainability benefits
 - ESG management
- Analysis of indicator results at project level
 - Sustainability benefits
 - ESG management

Bond Review

- Analysis of the implementation of bond processes
 - Evaluation and selection process: evaluation of the coherence and efficiency of the implemented process, and exhaustiveness of the ESG issues covered
 - Allocation process based on the definition of the rules for management of proceeds
- Analysis of the existence and completeness of reporting, according to initial commitments
 - Fund allocation
 - Sustainability benefits aggregated at bond level
 - ESG management, transversal indicators
- Analysis of indicator results at bond level
 - Sustainability benefits aggregated at bond level
 - ESG management, transversal indicators

VIGEO EIRIS' ASSESSMENT SCALES

Performance evaluation		Level of assurance	
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.	Reasonable	Able to convincingly conform to the prescribed principles and objectives of the evaluation framework
Good	Convincing commitment; significant and consistent evidence of command over the issues. Reasonable level of risk management.	Moderate	Compatibility or partial convergence with the prescribed principles and objectives of the evaluation framework
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	Lack or unawareness of, or incompatibility with the prescribed principles and objectives of the evaluation framework
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.		



Vigeo Eiris is an independent international provider of environmental, social and governance (ESG) research and services for investors and public & private organizations. We undertake risk assessments and evaluate the level of integration of sustainability factors within the strategy and operations of organizations.

Vigeo Eiris offers a wide range of services:

- ▶ **For investors:** decision making support covering all sustainable and ethical investment approaches (including ratings, databases, sector analyses, portfolio analyses, structured products, indices and more).
- ▶ **For companies & organizations:** supporting the integration of ESG criteria into business functions and strategic operations (including sustainable bonds, corporate ratings, CSR evaluations and more).

Vigeo Eiris is committed to delivering client products and services with high added value: a result of research and analysis that adheres to the strictest quality standards. Our methodology is reviewed by an independent scientific council and all our production processes, from information collection to service delivery, are documented and audited. Vigeo Eiris has chosen to certify all its processes to the latest ISO 9001 standard. Vigeo Eiris is an approved verifier for CBI (Climate Bond Initiative). Vigeo Eiris' research is referenced in several international scientific publications.

With a team of more than 240 experts of 28 different nationalities, Vigeo Eiris is present in Paris, London, Brussels, Casablanca, Hong Kong, Milan, New York, Rabat and Santiago de Chile.

The Vigeo Eiris Global Network, comprising 4 exclusive research partners, is present in Brazil, Germany, Israel and Japan.

For more information: www.vigeo-eiris.com

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