



Société des grands projets
Second-Party Opinion – Green Framework



Excellent Good Aligned Not Aligned

Pillar	Alignment	Key Drivers
Use of Proceeds	Excellent	<ul style="list-style-type: none"> The use of proceeds (UoP) category described within this framework is aligned with the ICMA Green Bond Principles (GBP), and demonstrates clear environmental benefit. Sustainable Fitch views the UoP as compliant with the technical screening criteria (TSC) of the EU taxonomy under the 6.15 activity of “infrastructure enabling low carbon road transport and public transport” under the climate change mitigation environmental objective and “infrastructure enabling road transport and public transport” under the climate change adaptation environmental objective. Société des grands projets further demonstrates compliance with do no significant harm (DNSH) criteria and minimum safeguards.
Use of Proceeds – Other Information	Excellent	<ul style="list-style-type: none"> Clear eligible project descriptions and the commitment to prioritise financing new projects positively affect this section’s score.
Evaluation and Selection	Excellent	<ul style="list-style-type: none"> The project evaluation and selection process is robust, with a dedicated green bond committee. Furthermore, a good balance of relevant expertise is witnessed in the process, including environmental expertise.
Management of Proceeds	Excellent	<ul style="list-style-type: none"> Management of funds is directly handled by the project-based company, ensuring clear traceability and tracking. The issuer’s removal power for allocated proceeds in case of ineligibility improves the section’s score.
Reporting and Transparency	Excellent	<ul style="list-style-type: none"> The issuer commits to annually report until full proceeds allocation of the funds for allocation reporting, and until the maturity of the instruments issued under this framework for impact reporting. It will seek third-party verification of this reporting. This is aligned with the ICMA GBP. The selection of impact metrics also aligns with the ICMA Harmonized Framework for Impact Reporting.

Framework Type	Green
Alignment	✓ Green Bond Principles 2021 (ICMA) with June 2022 Appendix I
Date assigned	11 December 2023
See Appendix B for definitions.	

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Relevant UN Sustainable Development Goals



Source: Sustainable Fitch, UN

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Use of Proceeds Summary

Green Clean transportation

Source: Grand Paris Express green financing framework (January 2024)

Framework Highlights

We consider transactions under this green finance framework to be aligned with the ICMA GBP.

This is the third version of the green bond framework issued by Société des grands projets (previously registered as Société du Grand Paris), with the previous two versions released in October 2018 and March 2021. The updated framework is partly motivated by the change of issuer's name and scope following a law adopted on 27 December 2023. Under the expanded perimeter of action, Société des grands projets can now also be mobilised for the financing and construction of regional metropolitan express services labelled as such by the state throughout the national territory. The projects may encompass new railway lines; new multimodal hubs, stations and maintenance centres; and small national railway lines.

However, the issuer specifies that this framework document and the green bonds issued under it, as well as all the previous green bond issuances, are exclusively devoted to the expenses of the Grand Paris Express (GPE) and not to regional metropolitan express services. Should the company decide to expand the scope of its framework to include other projects than the GPE, an updated framework will be released.

The framework discloses a sole UoP: clean transportation. This includes the construction of infrastructure necessary for the operation of urban public transport with zero tailpipe CO2 emissions, as well as infrastructure necessary for the operation of urban transport.

Société des grands projets's framework integrates the EU taxonomy requirements related to activity 6.15, "infrastructure enabling low carbon road transport and public transport" under the climate change mitigation environmental objective, and "infrastructure enabling road transport and public transport" under the climate change adaptation environmental objective. For climate change mitigation, it demonstrates alignment with the TSC based on the financing and construction of infrastructure enabling zero direct tailpipe emissions and dedicated to suburban public passenger transport. The issuer clearly demonstrates its full compliance with the DNSH criteria throughout the project's life.

For climate change adaptation, we deem the framework aligned with the TSC, as the issuer has implemented physical adaptation solutions that substantially reduce the most important physical climate risks that are material to the construction of the GPE, has conducted a climate risk and vulnerability assessment compliant with the taxonomy requirements, and its adaptation solutions implemented fulfil all taxonomy criteria. Similar to the climate change mitigation objective, the issuer clearly demonstrates its full compliance with the DNSH criteria.

The green euro medium-term note programme is dedicated exclusively to financing the GPE's new automated metro lines. Net earnings from the green bonds issued are allocated to issuer's investments in the GPE project: the eligible assets are 200km of new lines, 68 stations, an extension of line 14, and seven operations centres that make up the new network. The GPE's cost is estimated at EUR36.1 billion. The issuer has raised EUR26.25 billion as of end-2023 under its green euro medium-term note programme.

The scale and speed of activity required to meet France's 2050 carbon-neutrality target will need to be supported by large levels of financing. The aim of the green bond programme to be issued under this framework is to attract significant investment from the private sector for green projects that can help Paris, and more broadly the Ile-de-France region, transition to a low-carbon society given the large share of transport in the regional GHG emissions. Road transport accounted for 29% of regional GHG emissions in 2018, according to the Territorial Observatory of the national territorial cohesion agency, and the Ile-de-France region accounted for 10% of the national GHG emissions in 2021.

Source: Sustainable Fitch, Grand Paris Express green financing framework (January 2024), Régions de France website

Entity Highlights

Société des grands projets is a fully government-owned French entity. It was created in 2010 following the law on “Grand Paris” promulgated in June 2010, with the sole purpose to finance and construct the GPE project. The issuer's current scope of activities is the construction of railway lines, stations and related facilities; acquisition of railway vehicles; development of stations; and design and construction of a fibre-optic pipeline alongside the railway lines. Importantly, the company does not operate the infrastructure.

Although the GPE project is regional in nature, it is classified as a national interest project under French law due to the economic importance of the Ile-de-France region, which contributes around 30% of France's GDP. The project is also expected to stimulate sustainable, ecological growth and to increase French GDP by EUR100 billion in the long term.

The issuer's main source of financing is debt raised from the capital market, which is facilitated by its status of state-owned industrial and commercial undertaking, with the French state acting as guarantor. This allows the issuer to benefit from advantageous credit conditions and spread the infrastructure repayment over approximately 50 years. It receives income from the state derived from local tax items, tax on office and office premises, tax on parking areas, flat-rate taxation on network corporations, tourist tax surcharge and special facilities tax.

Its status also means that the state fully owns and closely monitors the entity. Eleven of the 21 voting members of the issuer's supervisory board are representatives of the state, which also nominates the executive board. A state-appointed financial controller approves budgets, which are subject to public audit by the Ministry of Finance and the Ministry of Transport; the issuer is also subject to the ultimate control of the state's supervisory bodies. The government makes strategic decisions on the GPE project and its financing, while the French parliament has to approve the type and the level of the tax earmarked for the issuer through the finance bill.

The GPE is an automated, fully electric railway network with 68 new stations and 200km of additional railways that will be fully operational around 2030. Its main purpose is to limit urban sprawl and land artificialisation. The issuer estimates that an urban renewal thanks to new access to transportation and real estate development within a 10-minute walk around the new metro's 68 stations is achievable, and would deliver positive impact across 140sqkm of land surface, the equivalence of more than one and a half times the surface of intramural Paris (105sqkm).

The Paris Urbanism Agency (APUR in French) identified 353 favourable development projects near the future GPE stations, or 32 million sqm planned. This includes 13 million sqm of residential (42% of total surface planned), 9.3 million sqm of offices (30%), 2.8 million sqm of public facilities (9%), and 6.9 million sqm of other activities (19%) such as industrial and hospitality activities. As of February 2021, 38% of programmed areas have already been delivered.

From a sustainability angle, the GPE has significant environmental and social benefits. Environmentally, the project generates a clear benefit with increased access to clean transportation modes and modal shift from polluting means of transportation towards zero-tailpipe-emission technologies, which aligns the project with the wider climate change objectives of the EU taxonomy.

In social terms, it contributes to greater transport connectivity for people in the Ile-de-France region, particularly by reducing the need to travel via Paris to access surrounding cities. One of GPE's key purposes is to open up certain peri-urban areas, particularly isolated or with saturated transport. It will therefore allow a significant reduction in transport time on many Ile-de-France routes, with an estimated impact for over 3 million passengers each day. Furthermore, once completed, the GPE will allow 90% of Ile-de-France residents to live less than 2km from a train station by 2030. The UN Sustainable Development Goals (SDGs) are referenced, and there is a clear contribution to SDGs 11 (sustainable cities and communities) and 13 (climate action).

Source: Sustainable Fitch, Prefect of the Ile-de-France region “Modelling of displacements in IDF with MODUS 3.1” (March 2021), INSEE “Sustainable Development Goals: perspectives on Ile-de-France” (January 2022), APUR “Mutations in the 68 GPE station districts in 2021” (May 2022)

Use of Proceeds – Eligible Projects

Alignment: Excellent

Company Material

Sustainable Fitch’s View

Clean transportation

- This UoP includes the construction of the infrastructure needed to operate urban public transport with zero tailpipe CO2 emissions, as well as the infrastructure needed to operate urban public transport.
- Where GPE is concerned (the only eligible project/asset at the date of this framework), the expenditure on acquiring land, the expenditure to build line sections, maintenance sites and ancillary structures, the expenditure to build and develop stations and station districts, the expenditure on salaries, and the expenditure on financial and ancillary costs, impact studies, audits and advisory services are included.

- This UoP is aligned with the ICMA GBP category of clean transportation.
- The automation project improves the reliability of metro service in supporting the modal shift towards public transport, which has a lower carbon intensity per passenger than single-occupancy vehicles. The reduction of vehicles on the road also eases congestion and air pollution. According to the European Environment Agency, passenger transportation by rail is the least polluting mode of transporting people, with well-to-wheel emissions averaging 33gCO2e per passenger-kilometre (pkm), representing the transport of one passenger by a defined mode of transport over 1km in the EU in 2018, compared to 80gCO2e/pkm for buses and coaches and 143gCO2e/pkm for single-passenger cars.
- This UoP is eligible under the EU taxonomy for the activity 6.15 of construction of infrastructure enabling low-carbon public transport, under the change mitigation environmental objective, and construction of infrastructure enabling public transport under the climate change adaptation environmental objective. Société des grands projets’s metro and railway network is electrified, and therefore aligned with the EU taxonomy’s TSC requirement for climate change mitigation as the GPE infrastructure enables zero direct tailpipe emission technologies and is dedicated to suburban public passenger transport. Rail stations and technical centres are considered infrastructure that enables public transport, so construction of infrastructure required for operating the GPE’s suburban transport aligns with the activity of infrastructure enabling low-carbon public transport.
- The issuer has implemented physical adaptation solutions that substantially reduce the most important physical climate risks that are material to the construction of the GPE. We find the project to be aligned with the TSC requirement of climate change adaptation for activity 6.15.
- In 2021, the issuer conducted a physical climate risk identification and assessment analysis of GPE projects. The company used the Intergovernmental Panel on Climate Change’s (IPCC) most pessimistic scenarios to date (RCP 8.5) for 2050 and 2080, which is in line with the TSC requiring at least 10 to 30 years of climate projection scenarios, and the most recent IPCC reports. It identified fluvial flood (of the Seine and the Marne), drought, and changing temperature as the material physical climate risks for GPE projects, which are all included in the taxonomy. The issuer solicited the climate strategy consultancy firm, Carbone 4, to assess the infrastructure’s sensitivity to these climate-related hazards, which led to a mapping of the hazards. It specifies that this study covers the entire infrastructure, namely the overhead sections of the network, the underground sections of the network and the passenger areas.
- The adaptation solutions implemented by the issuer comply with all TSC requirements. They do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities. They also favour nature-based solutions when possible and are consistent with local, regional, and national adaptation plans and strategies. Lastly, they are monitored and measured against pre-defined indicators.





- In our view, the issuer has demonstrated full compliance with DNSH requirements for climate change mitigation and adaptation, sustainable use and protection of water and marine resources, circular economy, pollution prevention and biodiversity throughout the GPE's entire construction phase. The full assessment is available in the taxonomy assessment section.
- Finally, we confirmed the company's alignment with social best practices under the minimum safeguards assessment. The issuer has endorsed the UN Global Compact and committed to respect all internationally recognised human rights referenced in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.
- Beyond its alignment with the ICMA and clear contribution to the EU taxonomy climate change mitigation and adaptation objectives, the GPE will generate substantial environmental benefits. By 2050, CarbOptimum estimates that the GPE will have contributed to reducing GHG emissions by at least 14.2 million tCO₂e in Ile-de-France under a conservative scenario (a new update is expected in 2Q24, and this update could result in an update to the SPO) thanks to the modal shift from the road to public transport and soft mobilities such as walking and cycling (36%), and the development of train station districts (64%) by limiting soil artificialisation that currently represents 22% of the regional surface in Ile-de-France according to the national statistics institute (INSEE in French).
- Société des grands projets intends to limit the GPE's impacts on soil artificialisation by building in areas already heavily artificialised. According to the Regional and Interdepartmental Directorate of Equipment and Development of Ile-de-France, when the network will be fully commissioned, it will allow an average annual decrease in traffic of 2 billion vehicles/km driven.
- The issuer's reporting acknowledges and confronts potential environmental damage. We positively view that the company strengthened its climate strategy in 2021, with a new objective of reducing GHG emissions from the GPE's construction by 25% in comparison with the expected emissions, mainly based on the use of low-carbon concrete. For example, an innovation developed with the academic world aims to transform spoil into low-carbon concrete on GPE sites through the use of "flash calcination" systems, a fast cooking method that transforms clay millstones for use in the manufacturing of concrete. This is a much less emissive solution, and improves the properties of the excavated lands of line 18 to transform them from waste to mineral addition status. This will contribute to the reuse of waste to create low-carbon concrete with up to 40% less CO₂ emissions.
- In social terms, the UoP contributes to greater transport connectivity for people in the Ile-de-France region, particularly by reducing the need to travel via Paris to access surrounding cities. The GPE's route incorporates the issue of equal opportunities by ensuring the development of low-cost transport in under-served and popular areas. It includes landlocked territories with socioeconomic difficulties, such as through its lines 15 East and 16. The GPE's route in the form of a ring road will enable greater accessibility of territories through the creation of new stations and connections between suburban towns.
- The GPE will ultimately facilitate access to employment for inhabitants of suburban towns by better connecting them to employment areas. For example, line 16 will make it easier for almost 800,000 inhabitants to find a job when the line is operational, according to the issuer's projections. The GPE will also enable students of those areas to more easily and



quickly access higher education institutions, for example the Paris-Saclay innovation cluster, bringing together research organisations, colleges, universities and private companies located in the southwest of the Ile-de-France region.

- The GPE will also have local positive social impacts on the areas it crosses by promoting professional integration with at least 10% of the hourly volume of the contracts reserved for people in back-to-work programmes, and by prioritising SMEs in 20% of the construction contracts. As of November 2023, more than 4,000 people have received an integration contract, and more than 4.5 million hours of integration since the start of the GPE's work, including 16% women. More than EUR2.4 billion was paid to SMEs since the beginning of the project.

Source: Grand Paris Express green financing framework (January 2024)

Source: Sustainable Fitch, CarbOptimum methodology 2018, French Environmental Code, Prefect of the Ile-de-France region "Modelling of displacements in IDF with MODUS 3.1" (March 2021), INSEE "Sustainable Development Goals: perspectives on Île-de-France" (January 2022), Société des grands projets flash calcination of clay from the GPE summaries and recommendations (August 2022), European Environment Agency transport and environment report 2021, Société des grands projets spoil management and recovery scheme (May 2022), "Silence Chantier" white paper (February 2019), ADEME "Processing performance of the Construction Products and Materials sector of the Building sector - proposal of a trajectory for the 1st approval" (November 2021), Société des grands projets note on the recovery of waste from demolitions of the Grand Paris Express (December 2023), Société des grands projets website, Ministry of Ecological Transition website, IPCC climate change synthesis report 2023

Use of Proceeds – Other Information

Company Material

- An amount equivalent to the net proceeds from the green bond issued will be used to finance and/or refinance expenses that contribute to the present or future value of the GPE project, together representing the “eligible assets”. The Société des grands projets will not use the funds raised through green bond issuances to finance or refinance the share of assets already financed by another financial sponsor or operator (European Investment Bank, Caisse des Deposits et Consignment, etc.). The net proceeds of a green bond will be allocated to cover all expenses contributing to the present or future value of GPE assets.

Source: Grand Paris Express green financing framework (January 2024)

Alignment: Excellent

Sustainable Fitch's View

- Société des grands projets confirmed that the eligible assets are restricted to new lines and new stations. In our view, the allocation of proceeds towards new projects enhances the additionality of bonds issued under this framework.
- The GPE is a single and large infrastructure project that needs constant financing until it enters a fully operative phase, which is planned around 2030. While having a lookback period up to three years is normally standard market practice, and above three years a pitfall, we consider that this does not apply to the issuer since there is evidence that funds will only be dedicated to ongoing and new construction costs. Refinancing capex during the construction phase does not impair the additionality of the bond since new proceeds raised will remain fully invested within the structure and construction of the project.
- The issuer clearly laid out the criteria for the project selection within its green financing framework, which is positive for the assessment. No ban on controversial projects is explicitly stated; however, such feature is not necessary in the context of Société des grands projets. The project company's sole objective of constructing infrastructure related to the GPE with a clear governance structure that includes oversight from regional stakeholders ensure funds should not be allocated to controversial projects.

Source: Sustainable Fitch

Evaluation and Selection

Company Material

- Société des grands projets has set up a green bond committee made up of members of its management board, finance department, environmental engineering department and economic studies department.
- The committee verifies the eligibility and traceability of projects eligible for the green bond programme and the proper allocation of net proceeds raised by Société des grands projets to eligible assets. This committee meets at least once a year and whenever necessary. It also establishes and validates the annual reporting and proposes a new allocation of funds in case of loss of eligibility.
- Furthermore, Société des grands projets ensures that each project is implemented in accordance with current European regulations, the French Public Procurement Code and its own internal purchasing processes.
- In all cases, Société des grands projets must first obtain an environmental permit which will be delivered based on an impact study carried out in accordance with the provisions set out in the French Environmental Code.
- Similarly, it is required to perform specific environmental controls during the construction and commercial operation phases; these are mandatory and governed by France's national transport framework law (Loi d'Orientation sur les Transports Intérieurs n°82-1153) of 30 December 1982. Each operation carried out under the GPE project has been declared of public utility. This label is issued after a prior public inquiry and includes a socioeconomic assessment.

Source: Grand Paris Express green financing framework (January 2024)

Alignment: Excellent

Sustainable Fitch's View

- The issuer's evaluation and selection process demonstrates a good level of rigour that is further supported by its green bond committee, whose core responsibility lies in the approval and sanctioning of eligible projects under this framework. This committee exerts sound multidisciplinary expertise, consisting of members from the management, finance, environment and economics departments.
- We positively view the fact that this evaluation and selection process is overseen by a multi-disciplinary team with a broad range of skill sets. The committee contains at least one member with environmental expertise. This provides confidence to stakeholders that relevant environmental knowledge was used in the approval process.
- It benefits the company's green financing credibility to have a multi-layer internal control structure for green financing. The green bond committee checks out the project evaluation and selection, and all its decisions are supervised by the Ile-de-France region, the Ministry of Finance, the Ministry of Transport and the state's supervisory bodies.
- There is a good breadth of representation from the management board, finance, environmental engineering and economic studies departments within the green bond committee. The issuer informed us that the environment and innovation strategy directorate, whose environmental engineering directorate is part of, is fully dedicated to GPE's environmental and social issues.
- The company integrated the EU taxonomy consideration within its UoP to comply with the EU taxonomy TSC under activity 6.15 of “infrastructure enabling low carbon road transport and public transport” and “infrastructure enabling road transport and public transport”. Additionally, the issuer's framework contains a clear commitment to observe DNSH and minimum safeguards, all of which point towards the project's clear environmental benefits.

Source: Sustainable Fitch

Management of Proceeds

Alignment: Excellent

Company Material

- An amount equal to the net proceeds raised from the green bonds issued by Société des grands projets is used to finance (including pre-financing) and/or refinance all or part of the investments related to the GPE project. Proceeds not yet allocated will be exclusively placed with the French Treasury, in accordance with the provisions set out in article 47 of decree No. 2012-1246 on budgetary and public accounting management of 2012. The amounts on deposit do not generate any return (article 197 of this same decree).
- In case of cancellation, sale, non-respect of eligibility criteria or major controversy, the Société des grands projets will seek to reallocate the proceeds to finance other eligible assets as promptly as possible. Any reallocation of proceeds will be documented in the subsequent allocation and impact report.

Sustainable Fitch's View

- The management of proceeds is confined and ring-fenced within the project company and ensures clear tracking and reporting of funds.
- The issuer's decision to keep unallocated proceeds invested in company liquidity is common market practice. Investing unallocated proceeds in short-term green projects that fully comply with green principles can help maximise positive environmental impact throughout the instrument's term. However, the issuer informed us that it is not possible to do this under article 47 of decree No. 2012-1246.
- The issuer monitors the proceeds and removes assets that no longer comply with the eligibility criteria set out in the green finance framework. It commits to replace them with new eligible green projects on a best-effort basis and to report on new allocation within a year. This provides assurance to investors that the proceeds will continue to deliver positive environmental and social impact, as intended, throughout the instrument's term.

Source: Grand Paris Express green financing framework (January 2024)

Source: Sustainable Fitch

Reporting and Transparency

Alignment: Excellent

Company Material

- In the year following each issue, Société des grands projets will provide investors with an update of the amounts allocated to the GPE project's eligible assets, relevant impact metrics and the publication of an external third-party assurance on the proper allocation of the proceeds raised and on the institution's reporting compliance with the eligibility criteria.
- This information will be published on the Société des grands projets website.
- Société des grands projets will provide investors each year with a report describing how the proceeds raised have been allocated to eligible assets.
- This allocation report will include, in particular, the amounts invested in eligible assets (in millions of euros), a breakdown by GPE line (in millions of euros), progress on the project and project illustrations.
- This allocation report will therefore indicate the amounts allocated to eligible assets and the amounts yet to be allocated for pre-financing purposes, with the latter remaining deposited with the French Treasury.
- The allocation report will be published annually on the Société des grands projets website until full proceeds allocation, and until bond maturity for impact report.
- Société des grands projets will endeavour to inform investors of the breakdown between financing and refinancing prior to each financing operation.
- Société des grands projets models its reporting on the ICMA's recommendations, in particular those issued for impact reporting, and refers to the Harmonised Framework for Impact Reporting of June 2023. The issuer particularly follows the recommendations issued by the ICMA in this document for waste management and resource efficiency and for cleanTransportation.
- The impact report will provide information about the monitoring of compliance with the metrics set out in the European taxonomy's technical screening criteria applicable to the eligible economic activities.
- In addition, Société des grands projets pledges to publish on its website impact reports providing construction-related metrics during the project execution period, and an impact report providing commercial operation impact indicators after the lines have been brought into service, referring to the ex-post review requirements under the national transport framework law.
- Any material change affecting the projects financed (e.g. an ESG controversy) and resulting in a change to the green spending portfolio will be described in detail in the impact report.

Sustainable Fitch's View

- The issuer fully committed to reporting on the allocation of its green bonds annually until full proceeds allocation. This aligns with the recommendations of the ICMA GBP.
- We positively view the issuer's commitment to annually report on the allocated proceeds at GPE's line level. Such granular reporting will provide sufficient transparency to stakeholders and we view reporting on the various lines as the most relevant scale to inform on the environmental and social benefits of the projects.
- The issuer commits to annually disclose the amount of unallocated proceeds at a portfolio level. While further granularity could enhance its reporting, for large green bond issuers such as Société des grands projets, which counts over EUR26.25 billion in green bonds issued since inception as of December 2023, portfolio reporting is more relevant.
- The issuer commits to reporting annually on the positive environmental impact of eligible green projects financed under this framework. This includes reporting on predicted GHG emissions reduction, actual GHG emissions avoided, and avoided vehicle flows (modal shift), for example. The issuer discloses a detailed list of impact metrics it will report on its website, including construction indicators during the implementation period, and commissioning impact indicators after the commissioning of a line. A possible improvement in impact reporting could be to disclose environmental impact metrics for each line.
- The issuer developed its own tool, CarbOptimum, for prospectively assessing GPE's induced and avoided life-cycle GHG emissions. This tool calculates the avoided emissions during the operating phase by subtracting anticipated emissions between a scenario with and without the GPE.
- We consider the impact metrics chosen to be specifically measurable and aligned with the recommendations of the ICMA Handbook – Harmonised Framework for Impact Reporting from June 2023. We positively view the issuer's selection of impact metrics as they align with recognised international market standards.
- We view positively that the issuer commits to disclose social co-benefits indicators, such as number of jobs on construction sites, and number of outreach officers deployed in the construction phase; number of additional passengers carried, saving time for users; and number of jobs created or supported by the project in the operational phase. In our view, they are needed to follow the project's performance in terms of urban sprawl and economic development.
- Furthermore, the company has taken all the necessary actions to be aligned with the EU taxonomy, which we view as the best practice



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- Impact reports will describe environmental outcomes and social co-benefits (CO2 avoided, energy saved, travel time reduced for users, increased access to employment basins) and include the calculation methods used and underlying assumptions adopted.
 - Each year Société des grands projets publishes on its website a moderate assurance report on the proper allocation of the funds raised and on the compliance of its reporting with the eligibility criteria defined in the framework, and so until full proceeds allocation or in case of reallocation.
- currently available on the European market to ensure projects make a significant contribution to climate change mitigation and adaptation while they manage their potential negative impact on the other remaining environmental objectives.

Source: Grand Paris Express green financing framework (January 2024)

Source: Sustainable Fitch, CarbOptimum methodology 2018



UoP – Examples of Projects / UoP – List of Projects

Clean transportation	<p>Line 14 South Metro line extension project from Maison Blanche to Aéroport d'Orly. The project will consist of seven stations, including five connected to the Réseaux Express Régional (RER), metro or tramway, and 14km of automatic metro. Thirteen municipalities will be served, 300,000 daily trips are forecasted and 260,000 inhabitants will be served. It will connect Paris and Orly airport while serving dense residential areas and major hubs and facilities in the metropolis, such as the Rungis market or the Gustave-Roussy Institute.</p> <p>Line 15 South Metro line construction project from Pont de Sèvres to Noisy - Champs. The project will consist of 16 stations, all connected to the RER, metro or tramway, and 37km of automatic metro. Twenty-two municipalities will be served and 300,000 daily trips are forecasted. It will connect Pont de Sèvres to Noisy - Champs in 37 minutes compared to more than an hour today. Line 15 South will facilitate access for all residents and many students to health and higher education institutions of metropolitan scope: Institut Gustave Roussy in Villejuif, UPEC University of Créteil, and Campus Descartes in Noisy - Champs.</p> <p>Line 15 West Metro line construction project from Saint-Denis Pleyel to Pont de Sèvres. The project will consist of 11 stations, including 10 connected to the RER, metro or tramway, and 22.4km of automatic metro. Fourteen municipalities will be served, 600,000 daily trips are forecasted and 800,000 inhabitants will be served. It will connect Pont de Sèvres to Saint-Denis - Pleyel in 25 minutes against 52 minutes today. It will therefore strengthen the development of the West of Paris by connecting La Défense, the first European business district, with Saint-Denis Pleyel and the Roissy and Le Bourget airports.</p> <p>Line 15 East Metro line construction project from Champigny Centre to Saint-Denis Pleyel. The project will consist of 12 stations, all connected to the RER, metro or tramway, and 23km of lines underground. Thirteen municipalities will be served, 300,000 daily trips are forecasted and 675,000 inhabitants will be served. The economic hub of Val de Fontenay will be accessible in 12 minutes from the Fort d'Aubervilliers station compared to 43 minutes today. The time to get to Avicenne Hospital from nearby towns will be significantly reduced. Students from Rosny Bois-Perrier will be able to access the amphitheatres of the University Paris-Est Créteil in 16 minutes, compared to more than one hour today.</p> <p>Line 16 Metro line construction project from Saint-Denis Pleyel to Noisy - Champs. The project will consist of 10 stations, including eight connected to the RER, metro or tramway, and 29km of automatic metro. Sixteen municipalities will be served, 200,000 daily trips are forecasted and 800,000 inhabitants will be served. It will allow many students from the east of Ile-de-France to go directly to higher education and training institutions. From Clichy-sous-Bois, access to the University of Créteil will be only 29 minutes compared to more than one hour and 20 minutes today. For example, it will multiply the jobs available within 45 minutes of transport from Aulnay-sous-Bois by six.</p> <p>Line 17 Metro line construction project from Saint-Denis Pleyel to Le Mesnil-Amelot. The project will consist of nine stations, including five connected to the RER, metro or tramway, and 27km of automatic metro. Thirteen municipalities will be served, 60,000 daily trips are forecasted and 565,000 inhabitants will be served. It offers a new efficient mode of transport to thousands of employees in the major employment areas of the north of the metropolis. It therefore strengthens the development of major economic hubs in Paris (Pleyel sector, Parc des Expositions de Villepinte, Paris-Charles de Gaulle and Paris-Le Bourget airports).</p> <p>Line 18 Metro line construction project from Versailles Chantiers to Aéroport d'Orly. The project will consist of 10 stations, including five connected to the RER, metro or tramway, and 35km of automatic metro. Thirteen municipalities will be served, 150,000 daily trips are forecasted and 565,000 inhabitants will be served. It will connect the major economic hubs located in Orly, Antony, Massy, Saint-Quentin-en-Yvelines and Versailles. It will also serve one of the world's leading R&D centres, Paris-Saclay. The European Commission is subsidising Société des grands projets with EUR64 million under the Connecting Europe Facility for the excavation of the line and the associated project management services.</p>
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Source: Grand Paris Express green financing framework (January 2024), Société des grands projets website



Relevant UN Sustainable Development Goals

- **11.2:** By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- **13.2:** Integrate climate change measures into national policies, strategies and planning.



Source: Sustainable Fitch, UN

Alignment with EU Taxonomy

EU Environmental Objectives: climate change mitigation (EO1); climate change adaptation (EO2); sustainable use and protection of water and marine resources (EO3); transition to a circular economy, waste prevention and recycling (EO4); pollution prevention and control (EO5); protection of healthy ecosystems (EO6)

Use of proceeds Clean transportation

Eligible Taxonomy economic activity **Infrastructure enabling low carbon road transport and public transport, infrastructure enabling road transport and public transport**

Substantial contribution

Applicable Environmental Objective	EO1	EO2	EO3	EO4	EO5	EO6
	Yes	Yes	No	No	No	No
Alignment with Substantial Contribution Criteria	<p>EO1</p> <ul style="list-style-type: none"> Yes. In our view, Société des grands projets complies with the TSC for the activity 6.15 “infrastructure enabling low carbon road transport and public transport” under the objective of climate change mitigation. The issuer’s metro and railway network is electrified, thereby complying with the EU taxonomy’s requirement for public transport infrastructure to produce zero direct tailpipe emissions and to be dedicated to suburban public passenger transport under the environmental objective of climate change mitigation. Rail stations and technical centres are considered infrastructure that enables public transport, and are covered under the category of infrastructure enabling low-carbon public transport. <p>EO2</p> <ul style="list-style-type: none"> Yes. In our view, the issuer complies with the TSC for activity 6.15 “infrastructure enabling road transport and public transport” under the objective of climate change adaptation. The issuer has implemented physical adaptation solutions that substantially reduce the most important physical climate risks that are material to the construction of the GPE, in our view. The issuer conducted in 2021 a physical climate risk identification and assessment analysis of GPE projects. The company used the IPCC’s most pessimistic scenarios to date (RCP 8.5) for 2050 and 2080, which is in line with the TSC requiring at least 10- to 30-year climate projection scenarios, and the most recent IPCC reports. It identified fluvial flood (of the Seine and the Marne), drought, and changing temperature as the material physical climate risks for GPE projects, which are all included in the taxonomy. The issuer solicited the climate strategy consultancy firm, Carbone 4, to assess the sensitivity of the infrastructure to these climate-related hazards, which led to a mapping of the hazards. The issuer specifies that this study covers the entire infrastructure, namely the overhead sections of the network, the underground sections of the network and the passenger areas. Regarding the flood hazard, the issuer has a flood-related risk management compliant with the French legislation and goes beyond it by building flood-resistant infrastructure higher than that of the Seine in 1910, namely the highest level ever reached by the Seine in Paris (8.6m). Regarding the drought hazard, the plans for the prevention of natural hazards relating to the phenomenon of clay swelling due to severe droughts were considered in the issuer’s catalogue of geological formation sheets (February 2017) when choosing the means of construction of tunnels (use of tunnel boring machines) and stations (moulded wall method). Regarding the changing temperature hazard, the infrastructure and rolling stock are designed to ensure that the network can continue to operate in difficult climatic conditions, for example during snowfall or high temperatures. The issuer points out that the GPE is resilient to heat waves due to its mostly underground infrastructure. The adaptation solutions implemented by the issuer comply with all the requirements of the TSC. They do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of cultural heritage, of assets and of other economic activities. They also favour nature-based solutions (for example, the issuer wants to create islands of freshness on the surface near its stations thanks to a low thermal effect flooring, limiting the use of air conditioning) and are consistent with local, regional and national adaptation plans and strategies. Lastly, they are monitored and measured against pre-defined indicators. 					

Do No Significant Harm (DNSH)

Applicable DNSH criteria	EO1	EO2	EO3	EO4	EO5	EO6
EO1	No	Yes	Yes	Yes	Yes	Yes
EO2	Yes	No	Yes	Yes	Yes	Yes
Alignment with DNSH criteria	<p>EO1</p> <ul style="list-style-type: none"> Yes. The DNSH criteria for the activity have been confirmed. DNSH criteria for climate change adaptation environmental objective under the alignment assessment against the climate change mitigation objective requires the issuer to perform a comprehensive climate change assessment, identifying the physical and transition climate risks that could cause damage to the company’s assets. The company has created a comprehensive climate risk mapping on its perimeter of activity. For example, the issuer has a flood-related risk management compliant with the French legislation and goes beyond it by building flood-resistant infrastructure higher than that of the Seine in 1910, namely the highest level ever reached by the Seine in Paris (8.6m). 					



- DNSH criteria for sustainable use and protection of water and marine resources environmental objective requires the issuer to perform an assessment of the impact on water of its activities, and to have a water use and protection management plan for the potentially affected water body or bodies. In our view, the company has assessed the relevant criteria in its environmental assessment. The issuer has stringent water pollution prevention measures on its construction sites. It enhances the issuer's water management policy that all contractors must have a water management policy in place. The company is also compliant with the French legislations related to water development and management.
- DNSH criteria for circular economy requires the company to prepare to reuse, recycle and recover at least 70% of the non-hazardous construction and demolition waste generated on the construction site, excluding soil and stones from category 17 05 04 of the European List of Waste. About 1% (525,000 tonnes on the whole project) of the issuer's non-hazardous construction and demolition waste aligns with the type of waste relevant to the DNSH criteria, as the construction of the GPE generates 99% waste (47 million tonnes on the whole project) consisting of non-hazardous soil debris and excavated stones (category 17 05 04) generated by the construction of tunnels, stations and works essential to the operation of the metro network. 65% (31 million tonnes) of the GPE's total waste (47.5 million tonnes on the whole project) has been generated as part of the infrastructure to date. The remaining 35% will occur in the coming years.
- As of the publication of this framework, the estimated recovery rate is 81.3% on all the GPE's demolitions. The issuer calculated the recovery rate of these demolition spoils by cross-checking various information, such as waste and monitoring registers (provided in article L.541-2 of the French Environmental Code), data from organisational waste management and elimination plans required for any demolition contract (including measures for waste reduction and reuse, sorting and compliance with the waste treatment hierarchy, implementation of a waste traceability system), or applying the national average recovery rates. For reference, the overall recovery rate of inert waste for building products and materials (excluding category 17 05 04) was 76.6% in France, according to a 2021 ADEME study. According to the Ministry of Ecological Transition, the overall rate of recovery of demolition waste varied between 60% and 80% in 2020, including category 17 05 04 waste.
- The company is committed to achieving the 70% threshold for the remaining 35% of waste to be produced, including waste under the DNSH criterion. Full monitoring of this waste type has been fully effective since 2023. It benefits the company's waste management profile to have a target of recycling 70% of total weight of spoil, including from its contractors, and to achieve a recovery rate of at least 77% in 2024 and 88% in 2027 for waste related to the demolition of buildings (500,000 tonnes or 95% of volume of waste relevant to the DNSH criterion), and to recover at least 75% of waste from the demolition of non-building infrastructure (25,000 tonnes or 5% of volume of waste relevant to the DNSH criterion) by 2025 and 85% by 2031. The first objective is in line with the national legislation (Decree of 10 June 2022 on specifications for the Extended Producer Responsibility building), and the second one with the Regional Plan for the Prevention and Management of Waste of the Ile-de-France region. We deem this target ambitious and core to the issuer's business.
- The company adopts a waste hierarchy management, illustrated through its detailed spoil management and recovery scheme and its booklet seven "Management of Spoil", integrated into the Specific Technical Clauses Book. The booklet specifies the operations and means to be implemented by companies involved in the GPE to limit the production of spoil or for recycling, recovering or disposing of such materials, both on-site and off-site.
- DNSH criteria for pollution prevention requires that noise and vibrations from use of infrastructure are mitigated by the company in compliance with Directive 2002/49/EC, and that measures are taken to reduce noise, dust and pollutant emissions during construction or maintenance works. All the procedures put in place by the issuer during the construction phase comply with the regulations of the French state, and therefore comply with the directive.
- The issuer has taken satisfactory measures to reduce noise in our view, for example, with the "Silence Chantier" white paper that identifies all solutions against noise generated by urban construction sites, and the "Météo des Chantiers" device that provides information on noise pollution. The issuer discloses that an anti-vibration buffer will be installed between the ground and the rail track across the entire iron track alignment and will be reinforced in sensitive areas to avoid the propagation of train vibrations. Regarding air pollution, all infrastructure is compliant with the national legislation related to air quality: The Environment Code (articles R221-1 to R221-3). The issuer is working on projects to reduce particulate emissions from the braking phases as well.
- DNSH criteria for biodiversity requires that the company carries out an environmental impact assessment in accordance with Directive 2011/92/EU, and then implements required mitigation and compensation measures. The issuer mentioned it commissioned environmental impact assessments for the construction of each line section due to their nature of public utility, and hence complies with the requirement for the biodiversity objective. The issuer discloses that no works nor infrastructure are located in a Natura 2000 area, and that there have been no substantial hydrogeological or ecological impacts from the critical sites. It also has measures in place to mitigate potential impacts on animals and the spread of invasive species. We view positively that both negative and positive impacts of GPE on biodiversity are disclosed in the green financing framework as it gives greater transparency to stakeholders.

Alignment with
DNSH criteria

EO2

- Yes. The DNSH criteria for the activity have been confirmed.
- DNSH criteria for climate change mitigation environmental objective under the alignment assessment against the climate change adaptation objective requires the infrastructure to be climate proofed in accordance with



the appropriate climate proofing practice, and to demonstrate not leading to additional relative GHG emissions. Société des grands projets's carbon footprint covers Scopes 1, 2 and 3 of GHG emissions, and is verified every year by an auditor. The issuer has also fixed the shadow cost of carbon at 100EUR/tCO_{2e}. By 2050, CarbOptimum estimates that the GPE will have contributed to reducing GHG emissions by at least 14.2 million tCO_{2e} in Ile-de-France under a conservative scenario thanks to the modal shift from the road to public transport and soft mobilities and the development of train station districts. Furthermore, none of the GPE lines is intended for the transport or storage of fossil fuels.

- The activity's alignment with all other DNSH criteria has been confirmed in the previous assessment as they are the same as for the taxonomy alignment assessment against the environmental objective of climate change mitigation.

Minimum safeguards (MS)

Alignment with Minimum Safeguards	• Yes. The issuer endorsed the UN Global Compact and committed to respecting all internationally recognised human rights referenced in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. The company integrates these considerations into its code of conduct. The issuer also has a satisfactory taxation process in our view with action plans in place.
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Outcome of Taxonomy Assessment For UoP	EO1	Aligned. This UoP is aligned with the EU taxonomy.
	EO2	Aligned. This UoP is aligned with the EU taxonomy.

Source: Sustainable Fitch, French Environmental Code, Société des grands projets spoil management and recovery scheme (May 2022), "Silence Chantier" white paper (February 2019), ADEME "Processing performance of the Construction Products and Materials sector of the Building sector - proposal of a trajectory for the 1st approval" (November 2021), Société des grands projets catalogue of geological formation sheets (February 2017), Société des grands projets note on the recovery of waste from demolitions of the GPE (December 2023), Société des grands projets green bond reporting 2021, Société des grands projets website, Ministry of Ecological Transition website, IPCC climate change synthesis report 2023

Appendix A: Principles and Guidelines

Type of Instrument: Green

Four Pillars

1) Use of Proceeds (UoP)	Yes
2) Project Evaluation & Selection	Yes
3) Management of Proceeds	Yes
4) Reporting	Yes

Independent External Review Provider

Second-party opinion	Yes
Verification	Yes
Certification	Yes
Scoring/Rating	No
Other	n.a.

1) Use of Proceeds (UoP)

UoP as per Green Bond Principles (GBP)

Renewable energy	No
Energy efficiency	No
Pollution prevention and control	No
Environmentally sustainable management of living natural resources and land use	No
Terrestrial and aquatic biodiversity conservation	No
Clean transportation	Yes
Sustainable water and wastewater management	No
Climate change adaptation	No
Certified eco-efficient and/or circular economy adapted products, production technologies and processes	No
Green buildings	No
Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP	No
Other	n.a.

2) Project Evaluation and Selection

Evaluation and Selection

Credentials on the issuer's social and green objectives	Yes
Documented process to determine that projects fit within defined categories	Yes
Defined and transparent criteria for projects eligible for sustainability bond proceeds	Yes
Documented process to identify and manage potential ESG risks associated with the project	Yes
Summary criteria for project evaluation and selection publicly available	Yes
Other	n.a.

Evaluation and Selection, Responsibility and Accountability

Evaluation and selection criteria subject to external advice or verification	Yes
In-house assessment	No
Other	n.a.

3) Management of Proceeds

Tracking of Proceeds

Sustainability bond proceeds segregated or tracked by the issuer in an appropriate manner	Yes
Disclosure of intended types of temporary investment instruments for unallocated proceeds	Yes
Other	n.a.

Additional Disclosure	
Allocations to future investments only	No
Allocations to both existing and future investments	Yes
Allocation to individual disbursements	Yes
Allocation to a portfolio of disbursements	No
Disclosure of portfolio balance of unallocated proceeds	Yes
Other	n.a.
4) Reporting	
UoP Reporting	
Project-by-project	Yes
On a project portfolio basis	No
Linkage to individual bond(s)	No
Other	n.a.
UoP Reporting/Information Reported	
Allocated amounts	Yes
Sustainability bond-financed share of total investment	Yes
Other	n.a.
UoP Reporting/Frequency	
Annual	Yes
Semi-annual	No
Other	n.a.
Impact Reporting	
Project-by-project	No
On a project portfolio basis	Yes
Linkage to individual bond(s)	No
Other	n.a.
Impact Reporting/Information Reported (exp. ex-post)	
GHG emissions/savings	Yes
Energy savings	No
Decrease in water use	No
Other ESG indicators	Number of km of additional rail tracks brought into service, number of additional passengers carried, time saved for users, number of jobs created or preserved, number of infrastructures accessible to persons with reduced mobility
Impact Reporting/Frequency	
Annual	Yes
Semi-annual	No
Other	n.a.
Means of Disclosure	
Information published in financial report	No



Information published in ad hoc documents	Yes
Information published in sustainability report	No
Reporting reviewed	Yes
Other	n.a.

Note: n.a. – not applicable.
Source: Sustainable Fitch, ICMA

Appendix B: Definitions

Term	Definition
Debt types	
Green	Proceeds will be used for green projects and/or environmental-related activities as identified in the instrument documents. The instrument may be aligned with ICMA Green Bond Principles or other principles, guidelines or taxonomies.
Social	Proceeds will be used for social projects and/or social-related activities as identified in the instrument documents. The instrument may be aligned with ICMA Social Bond Principles or other principles, guidelines or taxonomies.
Sustainability	Proceeds will be used for a mix of green and social projects and/or environmental and social-related activities as identified in the instrument documents. The instrument may be aligned with ICMA Sustainability Bond Guidelines or other principles, guidelines, taxonomies.
Sustainability-linked	Financial and/or structural features are linked to the achievement of pre-defined sustainability objectives. Such features may be aligned with ICMA Sustainability-linked Bond Principles or other principles, guidelines or taxonomies. The instrument is often referred to as an SLB (sustainability-linked bond) or SLL (sustainability-linked loan).
Conventional	Proceeds are not destined for any green, social or sustainability project or activity, and the financial or structural features are not linked to any sustainability objective.
Other	Any other type of financing instrument or a combination of the above instruments.
Standards	
ICMA	International Capital Market Association. In the Second-Party Opinion we refer to alignment with ICMA's Bond Principles: a series of principles and guidelines for green, social, sustainability and sustainability-linked bonds.
LMA, LSTA and APLMA	Loan Market Association (LMA), Loan Syndications and Trading Association (LSTA) and Asia Pacific Loan Market Association (APLMA). In the Second-Party Opinion we refer to alignment with Sustainable Finance Loan Principles: a series of principles and guidelines for green, social and sustainability-linked loans.
EU Green Bond Standard	A set of voluntary standards created by the EU to "enhance the effectiveness, transparency, accountability, comparability and credibility of the green bond market".

Source: Sustainable Fitch, ICMA, UN, EU Technical Expert Group

Appendix C: Second-Party Opinion Methodology

Second-Party Opinion

Second-Party Opinions (SPO) are a way for issuers to obtain an independent external review on their green, social, sustainability and sustainability-linked instruments.

As per the ICMA Guidelines for External Reviewers, an SPO entails an assessment of the alignment of the issuer's green, social, sustainability or sustainability-linked bond or loan issuance, framework or programme with the relevant principles. For these purposes, "alignment" should refer to all core components of the relevant principles.

Sustainable Fitch analysts vary the analysis based on the type of instruments, to consider whether there are defined uses of proceeds or KPIs and sustainability performance targets. The analysis is done on a standalone basis, separate to the entity.

Analytical Process

The analysis considers all available relevant information (ESG and financial). The reports transparently display the sources of information analysed for each section and provide a line-by-line commentary on the sub-factors analysed. The ESG analysts working on an SPO will also engage directly with the issuer to acquire any additional relevant information not already in the public domain or in instrument-related documentation.

An important part of the analysis is the assessment of the E and S aspects of the use of proceeds. In addition to the alignment with ICMA Principle and Guidelines, the analysis may also refer to major taxonomies (e.g. the EU taxonomy for E aspects, and the UN Sustainable Development Goals for S aspects).

Once the analyst has completed the analysis, with commentary for the related SPO, it is submitted to the approval committee, which reviews it for accuracy and consistency. Based on issuer preference and mandate, an SPO can be monitored (annually or more frequently, if new information becomes available) or on a point-in-time basis.

Scale and Definitions

ESG Framework	
Excellent	Sustainable finance framework and/or debt instrument structure is fully aligned to all relevant core international principles and guidelines. Practices inherent to the structure meet excellent levels of rigour and transparency in all respects and are well in excess of the standards commonly followed by the market.
Good	Sustainable finance framework and/or debt instrument structure is fully aligned to all relevant core international principles and guidelines. Practices inherent to the structure meet good levels of rigour and transparency; in some instances, they go beyond the standards commonly followed by the market.
Aligned	Sustainable finance framework and/or debt instrument structure is aligned to all relevant core international principles and guidelines. Practices inherent to the structure meet the minimum standards in terms of rigour and transparency commonly followed by the market.
Not Aligned	Sustainable finance framework and/or debt instrument structure is not aligned to relevant core international principles and guidelines. Practices inherent to the structure fall short of common market practice.

Source: Sustainable Fitch

SOLICITATION STATUS

The Second Party Opinion was solicited and assigned or maintained by Sustainable Fitch at the request of the entity.

A Sustainable Fitch ESG Analytical Product (ESG Product) provides an assessment of the Environmental, Social and/or Governance ("E", "S" and "G") qualities of an issuer and/or its securities. ESG Products provided by Sustainable Fitch include an ESG Entity Rating, ESG Framework Rating, ESG Instrument Rating, ESG Scores and ESG Second-Party Opinion, among other ESG analytical products. An ESG Product is not a credit rating. ESG Products are provided by Sustainable Fitch, a Fitch Solutions company, and an affiliate of Fitch Ratings. Sustainable Fitch has established certain policies and procedures intended to avoid creating conflicts of interest and compromising the independence or integrity of Fitch Ratings' credit rating activities and Sustainable Fitch's ESG Product generation activities. For a description of the methodology, limitations and disclaimers relating to Sustainable Fitch's ESG Products, please use this link: www.sustainablefitch.com.

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