



IndoSpace Logistics Parks Core Green Finance Framework Second Opinion

April 02, 2020

IndoSpace Logistics Parks Core (“ILPC”) is the largest industrial and logistics warehouse manager in India in terms of area under management, owning warehouses in 14 industrial and logistics parks in India. ILPC is a Joint Venture between real estate developer and warehousing & logistics specialist IndoSpace, investor Canadian Pension Plan Investment Board (“CPPIB”), and global investment and fund manager GLP.

ILPC expects to allocate the majority of net proceeds to EDGE certified green buildings, which cover both new and existing buildings. The buildings are serving international companies such as freight companies, manufacturers and retailers, heavy industry, electronics, transport, automotive and e-commerce trading companies. The EDGE standard of a 20 percent less energy use in addition to 20 percent less water use, and 20 percent less embodied energy in materials compared to a base case building will be independently certified. ILPC confirmed that in case of any major refurbishment, ILPC will report the comparison of the refurbished building with the original. According to the issuer, direct fossil fuel based heating and cooling sources as well as green buildings located in an area which depends on fossil fuel based district heating/cooling infrastructure are excluded. In addition to green buildings, project categories include renewable energy mostly through roof top solar panels to generate 10-12MW of power across the portfolio for local consumption. ILPC excludes direct investments in fossil fuel energy generation, large hydropower and concentrated solar power from its eligible project categories. In addition, ILPC screens all buildings for physical and transition climate risks pre-acquisition.

Applying a standard for energy efficiency, efficient water use and less embodied energy materials use through their entire portfolio has a significant influence on the development of an energy efficiency benchmark in India. While the issuer informed us that ILPC’s warehouses have good public transport access, ILPC does not have binding criteria regarding public transport access of its warehouses.

Based on the overall assessment of the projects that will be financed under this framework, and governance and transparency considerations, ILPC’s green finance framework receives a **CICERO Medium Green** shading and a governance score of **Good**. In order to improve its shading, ILPC could set additional/stronger emission and energy efficiency targets. In addition, ILPC could require higher green building classifications (e.g., EDGE Advanced) and could further improve its governance by improving the selection process for eligible projects. While ILPC has a systematic climate risk and resilience assessment, we encourage the issuer to also implement TCFD recommendations.

SHADES OF GREEN

Based on our review, we rate the ILPC’s green finance framework **CICERO Medium Green**.

Included in the overall shading is an assessment of the governance structure of the green finance framework. CICERO Shades of Green finds the governance procedures in ILPC’s framework to be **Good**.



GREEN BOND and GREEN LOAN PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.





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1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated March 2020. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

Expressing concerns with 'shades of green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green



Dark green is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.



Medium green is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.



Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.



Brown is allocated to projects and solutions that are in opposition to the long-term vision of a low carbon and climate resilient future.

Examples



Wind energy projects with a strong governance structure that integrates environmental concerns



Bridging technologies such as plug-in hybrid buses



Efficiency investments for fossil fuel technologies where clean alternatives are not available



New infrastructure for coal

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, the governance aspects are carefully considered and reflected in the overall shading of the green finance framework. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green finance framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent.



2 Brief description of ILPC's green finance framework and related policies

IndoSpace Logistics Parks Core Pte. Ltd. ("ILPC") is a Joint Venture between real estate developer and warehousing & logistics specialist IndoSpace¹, investor Canadian Pension Plan Investment Board ("CPPIB")², and global investment and fund manager GLP³.

This green finance framework sets out to cover all warehouses under management by ILPC. The issuer owns assets across 14 industrial and logistics parks, totaling an area under management of approximately 12 million sq. ft (or 1.1 million m²). This represents an approximate 30% market share, making ILPC the largest industrial and logistics warehouse manager in India in terms of area under management. The assets are prime industrial properties located in industrial and logistics hubs in India, serving international companies such as freight companies, manufacturers and retailers, heavy industry, electronics, transport, automotive and e-commerce trading companies.

The three organizations in the JV each bring their own focus on board. ILPC is a major developer of industrial and warehousing parks in India, having constructed over 30 parks across India since it was founded in 2007, currently serving over 80 companies. GLP is a global investment manager specializing in logistics and related technology investments, with over USD 84 billion in assets under management and a global real estate portfolio spanning 60 million square meters. CPPIB issued their own Green Bond Framework⁴ in 2018, followed by a EUR 1 billion Green Bond issuance to invest further in eligible assets such as renewables, water and real estate projects, as well as diversify the Fund's investor base.

The shareholding of the JV is CPPIB 93%, GLP 5% and IndoSpace 2%. The responsibility and ownership of the green framework for IndoSpace Core rests with the Board of ILPC, where CPPIB has 3 seats, GLP has 1 seat and IndoSpace has 1 seat.

In order to provide full transparency, the assets held by ILPC will not be used by CPPIB as eligible assets for any of their green financing and vice versa.

Environmental Strategies and Policies

ILPC, as an owner and manager of real estate for logistics and warehousing, predominantly has environmental impacts related to greenhouse gas emissions from electricity consumption for warehousing operations and construction emissions, but does not have overall emission reduction targets. Water use, water and air pollution, and material use & waste streams are other sources of environmental impact. GHG emission accounting⁵ includes operations taking place in the area under management (scope 1), electricity purchased or consumed (scope 2) and employee transport and waste management (scope 3). ILPC reports on environmental clearance on a regular basis.

¹ <https://www.indospace.in/>

² <https://www.cppinvestments.com/>

³ www.glpopop.com

⁴ http://www.cppib.com/documents/1850/CPPIB_Green_Bond_Framework_April_2018.pdf

⁵ GHG accounting follows ISO standard 14064. The issuer reports GHG emissions in line with the GHG Protocol Corporate Accounting and Reporting Standard by the World Business Council for Sustainable Development (WBCSD).



The three organizations forming the JV differ in terms of environmental targets and climate ambitions.

ILPC has an environmental responsibility program in place. It mentions elements of land use, soil, water and pollution as well as energy use as areas, without further specifying overall targets or performance criteria in these areas. In terms of examples of environmentally responsible initiatives, ILPC implements open spaces, tree plantations, use of non-hazardous and recyclable materials in buildings and reduced energy use, energy efficiency measures through performant lighting solutions, and energy efficient ventilation systems. The company aims to lead by example. It strives for energy efficiency, resource efficiency and environmental considerations by creating green belts around their parks through growing tree plantations. The issuer also assesses material composition during construction to ensure the building is energy efficient and reducing the energy consumption of their portfolio.

ILPC has a dedicated physical and transition climate risk checklist pre-acquisition and has evaluated these risks in terms of materiality. According to ILPC, buildings incorporate some climate resilience features in the design phase such as flood prevention, extreme weather adaptation and wind speed.

GLP's environmental policy⁶ presents a stakeholder- and materiality-based approach to define which environmental and broader sustainability actions are pursued. It lists certifications related to energy performance, water consumption and renewable energy as key achievements in the context of environmental sustainability. One of the steps of GLP's ESG policy is to set performance targets, implement processes to meet them and measure impact.

GLP applies standards and certification schemes to their portfolio, including BREEAM, LEED and alike. It showcases ample experience with integrating renewable energy solutions into their infrastructure and real estate, including solar panels, rainwater harvesting systems and thermal insulation materials.

In addition to a dedicated green bond framework that has received a Medium Green shading by CICERO Shades of Green, CPPIB has a policy on sustainable investing and a strategy to address climate change risks and opportunities.⁷

Use of proceeds

The net proceeds of the green bonds and green loans will be used to fund or refinance, in whole or in part, new or existing eligible green projects that fall under one or more of the eligibility criteria for project categories green buildings and renewable energy. The green buildings category combines new buildings and/or renovations in one sub category, and lists refurbishment and initiatives that reduce environmental impact as another. Both build on certification against a standard issued by IFC called EDGE ("Excellence in Design for Greater Efficiencies"; see the 'background' section for more information).⁸ Regarding the renewable energy category, ILPC informed us that the company intends to install roof top solar panels on all upcoming acquisitions made by the ILPC to generate 10-12MW of power across the portfolio to serve current tenant electricity requirements as well as serve common area utilities.

Concerning green loans, the issuer expects to refinance 75% of the assets under this framework (assets more than 12 months old), with the remaining share of green loans going into recently completed or new projects. ILPC informed us that no green bonds are currently considered.

⁶ https://www.glprop.com/images/news_file_upload/GLP%20ESG%20Policy.pdf

⁷ https://cicero.oslo.no/file/1238/CPPIB_2018.pdf

⁸ Excellence in Design for Greater Efficiencies – EDGE. See <https://www.edgebuildings.com/certify/>



Selection:

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

The eligible green projects are identified and selected through a process involving various functional areas in ILPC. The issuer also informed us that all of ILPC's building assets will qualify under this green finance framework's eligibility criteria.

The first step of screening projects for eligibility is to verify whether environmental clearance for the asset has been provided. This includes a desk study on environmental and social impacts, and a technical site visit including specific assessments such as testing of soil types for construction, contour survey mapping, site contamination, encroachment etc. Some supply chain considerations (use of locally sourced materials, reduction of transport) are included as well. The preliminary screening results in a categorization of projects following IFC categorization⁹. The issuer informed us that IFC's categories B and C are eligible as risks can be readily addressed through mitigation measures.

The next step is to verify that an EDGE certificate for the eligible project has been or will be issued as per the criteria listed in Table 1 below.

Representatives from ILPC's treasury, finance, development and design, project management and sustainability team will form a working group to review and select eligible green projects according to the criteria outlined in Table 1. The working group will de facto form the green finance committee, deciding in consensus on the projects to be selected under this framework. The issuer secures environmental (and social) due diligence through engagement of external consultants.

Selected projects will be presented to the Environmental and Social Management System Committee (ESMS) of ILPC for approval.

Any project of fossil fuel-based electric power and heat/cooling generation or improvement in the efficiency of fossil fuel-based electric power and heat/cooling generation will not be eligible under this framework. In addition, green buildings located in an area which depends on fossil fuel based district heating/cooling infrastructure are excluded. Large scale hydropower plants (>20MW capacity) and concentrated solar power will equally be excluded.

Management of proceeds

CICERO Green finds the management of proceeds of ILPC to be in accordance with the Green Bond Principles and Green Loan Principles.

The day to day execution and monitoring of the green finance framework is led by the operating manager for ILPC, working in accordance with the business plan approved by the Board of ILPC. The operating manager is held 40% by IndoSpace, 40% by GLP and 20% by CPPIB.

⁹ projects are being categorized as category A, category B, category C based on the extent of its adverse social and/or environmental impact. See:

https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/es-categorization



The net proceeds from each green financing transaction issued will be managed by ILPC's treasury team. ILPC will follow an earmarking approach for the eligible projects under this framework, and keep an internal record, containing information including:

- Green bond and green loan details including principal amount, maturity date, coupon, covenants etc.;
- List of eligible green projects and brief description of the projects; and
- The amount of net proceeds allocated to the projects.

Pending allocation, the net proceeds from the green bond or green loan issued will be held in accordance with ILPC's liquidity guidelines for short term time deposits or investments, or used to repay existing borrowings within the group. According to the issuer, ILPC's liquidity guidelines do not allow for investments in fossil fuel related assets (e.g., oil and gas company stocks).

Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

Reporting is the responsibility of the operating manager. For green bonds ILPC will provide information on the allocation of the net proceeds in the ILPC Green Finance Report, as well as its Annual Report and (as of 2021) on the website. Such information will be provided on an annual basis until all the net proceeds have been allocated. The information will contain at least the following details:

- A list of eligible green projects funded through ILPC's green bonds and green loans, including amounts allocated; and
- Remaining balance of unallocated proceeds.

For green loans ILPC will provide information on the allocation of the net proceeds of its green loans either publicly in line with the green bond reporting or privately to the borrower group participating in the green loan. Such information will be provided on an annual basis until all the net proceeds have been allocated. The information will contain at least the following details:

- A list of eligible green projects funded through ILPC's green financing transactions, including amounts allocated; and
- Remaining balance of unallocated proceeds.

The allocation of the net proceeds will be reviewed by an independent accountant.

In addition, where feasible, ILPC will provide qualitative and (for operational assets) quantitative environmental performance indicators of the eligible green projects funded. Subject to the nature of the eligible green projects, performance indicators that ILPC monitor mainly include, but are not limited to:

- Number and types of green building certifications obtained;
- Rating level of certifications obtained;
- Energy Consumption (kWh) either per square meter or on park level;
- Total Carbon Emissions (tonnes of CO₂e); and
- Water Consumption (million m³)



ILPC confirmed that in case of any major refurbishment, ILPC will report the comparison of the refurbished building with the original. According to the issuer, where possible, ILPC will engage an external party to verify the environmental impact data similar to ILPC's GHG emission report.



3 Assessment of ILPC’s green finance framework and policies

The framework and procedures for ILPC’s green finance investments are assessed, and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where ILPC should be aware of potential macro-level impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in ILPC’s green finance framework, we rate the framework **CICERO Medium Green**.

Eligible projects under the ILPC’s green finance framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green finance aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns.

Category	Eligible project types	Green Shading and some concerns
Green buildings 	<ul style="list-style-type: none"> ✓ New construction and/or renovation of existing buildings that have or will achieve EDGE Building Certification; or ✓ Refurbishment and/or tenant engagement initiatives that have or will achieve EDGE Building Certification <p>These green buildings may additionally achieve certificate(s) (any level) of any other equivalent green building label(s) with the aim of improving environmental performances of the buildings.</p>	Medium Green <ul style="list-style-type: none"> ✓ EDGE requires 20 percent less energy use, 20 percent less water use, and 20 percent less embodied energy in materials compared to a base case building. This is externally verified for each building. ✓ The issuer confirmed that EDGE generally aims to go beyond the performance required to pass environmental clearance for all of ILPC’s buildings. ✓ In a low-carbon 2050 perspective, the energy performance of buildings is expected to be improved, with passive and energy-contributing housing technologies becoming mainstream. ✓ New buildings with slightly improved energy efficiency performance may



		lock in fossil fuel based energy solutions.
		✓ Green buildings located in an area which depends on fossil fuel based district heating/cooling infrastructure are excluded.
		✓ Apart from EDGE requirements the issuer has no additional quantitative thresholds for greenhouse gas reduction, reduction of energy consumptions or water and material use as well as public transport solutions.
		✓ ILPC evaluates potential physical and transition climate risks pre-acquisition Physical risks that are considered are, e.g., high flood levels, extreme weather adaptation and wind.
		✓ ILPC confirmed that refurbishment and renovation will be considered before replacing buildings, to avoid large material footprints.
Renewable energy	Generation of energy from renewable sources, such as solar energy	Dark green
		✓ ILPC is aiming to generate renewable energy solutions for their assets under management.
		✓ To increase the share of renewable energy that is locally produced, ILPC could specify a target in its sustainability strategy.

Table 1. Eligible project categories

Background

In a low carbon 2050 perspective, the energy performance of buildings is expected to be improved, with passive house technology becoming mainstream and the energy performance of existing buildings greatly improved through refurbishments. According to the IEA¹⁰, the buildings and buildings construction sectors combined are responsible for 36% of global final energy consumption and nearly 40% of total direct and indirect CO₂ emissions. Efficiency of building envelopes needs to improve by 30% by 2025 to keep pace with increased building size and energy demand – in addition to improvements in lighting and appliances and increased renewable heat sources.¹¹

¹⁰ <https://www.iea.org/topics/energyefficiency/buildings/>

¹¹ <http://www.iea.org/tcep>



Energy efficiency improvements in buildings are thus important building blocks towards reaching the 2°C goal. Also, local transport solutions and easy access to renewable energy are important elements.

According to information provided by the issuer, the stabilized Grade A industrial market in India is approx. 40 million sq. ft, of which ILPC has an approximate 30% market share and is leading in terms of assets under management. While IGBC (Indian Green Building Council) is expected to come up with certification guidelines for the sector, according to the issuer, there are currently no regulations regarding energy efficiency, climate resilience and climate impact of warehouses in India. According to climate action tracker, India's current NDC's are 2°C compatible and require reduced emissions intensity of GDP by 33%–35% by 2030 below 2005 levels¹². In 2018, India's power sector was to 73% based on coal and to 19% based on renewables.¹³ The associated grid emission factor of the power sector amounts to 708gCO₂/kWh compared to a G20 average of 458gCO₂/kWh.¹³ In addition, according to data compiled by Climate Transparency Initiative buildings account for 5% of energy-related emissions in India. India has set itself a target of 175 GW renewable energy capacity by 2022 including 100 GW of solar and 60 GW of wind power capacity.¹⁴

EDGE has been developed by IFC, as a green building standard and certification system for over 160 countries. The process of certification, called the EDGE app¹⁵, helps to determine the most cost-effective options for designing green within a local climate context. EDGE can be used for buildings of all vintages, including new construction, existing buildings and major retrofits. EDGE is the only system that requires efficiency in embodied energy in materials as a certification parameter. A project that reaches the EDGE standard of 20 percent less energy use, 20 percent less water use, and 20 percent less embodied energy in materials compared to a base case building can be independently certified. In the Indian context, IFC has compiled an EU funded construction material database regarding the environmental data of the materials in order to obtain a baseline. The value of EDGE certification is a promotional advantage, as customers benefit from lower utility bills. The lowest level of EDGE certification does not have mandatory renewable energy supply requirements and does not account for several other relevant aspects of buildings such as access to public transport and climate resilience. For the latter, IFC is launching an additional Building Resilience Index¹⁶.

In addition to the EDGE standard level, two more strict level are defined:

- EDGE Advanced: Awarded to projects that improve energy efficiency by 40 percent or more, in addition to at least 20 percent savings in water and materials as per EDGE certification requirements.
- EDGE Zero Carbon: EDGE Advanced projects that achieve 100 percent carbon neutrality through renewables or carbon offsets at the operational stage receive further distinction.

Governance Assessment

Four aspects are studied when assessing the ILPC's governance procedures: 1) the policies and goals of relevance to the green finance framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent.

¹² <https://climateactiontracker.org/countries/india/pledges-and-targets/>

¹³ https://www.climate-transparency.org/wp-content/uploads/2019/11/B2G_2019_India.pdf

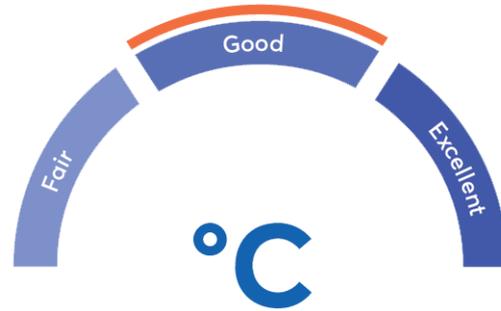
¹⁴ <https://niti.gov.in/writereaddata/files/175-GW-Renewable-Energy.pdf>

¹⁵ <https://www.edgebuildings.com/edge-experts/edge-experts-around-the-world/>

¹⁶ <https://www.resilienceindex.org/>



ILPC has relevant environmental policies in place but does not have overall emission reduction targets. The issuer assesses physical and transition climate risks pre-acquisition but has not implemented TCFD recommendations. The issuer selects process in two steps and will establish a selection committee including environmental expertise that will decide in consensus. In addition, the issuer considers supply chain elements and lock-in risks. The issuer will report externally verified impact metrics whenever applicable and informed us of the exception when the building is under construction/not yet operational. The overall assessment of ILPC's governance structure and processes gives it a rating of **Good**.



Strengths

ILPC holds a significant share of the market for warehousing and logistics in India, managing 7 to 8 times the floor space of its closest competitor. Applying a standard for energy efficiency, efficient water use and efficient material use through their entire portfolio has a significant influence on the development of an energy efficiency benchmark in India. CICERO Green is especially encouraged to see ILPC focusing on building materials, in addition to energy efficiency and water efficiency, through the EDGE standard by utilizing a building material benchmark recently established by the IFC for the Indian context in order to reduce environmental impact of ILPC's warehouses.

According to the issuer, ILPC currently has over 25% of the portfolio certified as EDGE-Advanced. We encourage the issuer to further raise the ambition in their eligibility criteria, for example by requiring a certification level of EDGE-Advanced.

It is a strength that the company intends to install roof top solar panels on all upcoming acquisitions made by ILPC to generate 10-12MW of power across the portfolio to serve current tenant electricity requirements as well as serve common area utilities.

ILPC has experience with reducing use of resources for its operations, such as application of rainwater harvesting systems, application of LED lighting and passive ventilation systems. The regular environmental clearance reporting exercise provides an assurance for environmental performance in line with national regulations and norms. This is available for all locations covered by this framework. The integration of local knowledge in setting measures for improving environmental performance and reducing GHG emissions is a particular strength of the issuer and this framework. For those buildings that are operated by tenants, the issuer requires a similar attention to environmental performance by the tenant.

It is a strength that ILPC's selection committee is comprised of several experienced professionals in-house and that external experts are hired for the selection and reporting process. In addition, the issuer also commits to regular reporting and audits.

Weaknesses

No significant weaknesses perceived at this point.

Pitfalls

The EDGE methodology used to certify ILPC's building stock requires a baseline that builds on national building codes, regulations, common building practices and policy objectives. The issuer's efforts to apply certification in



absence of building codes and regulations for warehouses is a strength for reasons discussed above (setting the standard, defining the benchmark). However, a potential pitfall of this approach is that the ambition level of the issuer's eligible projects remains unchallenged by the market, and undefined by binding policy objectives. In addition to the three cumulative 20% improvement thresholds set by the EDGE standard, we encourage the issuer to set additional quantitative thresholds and objectives. In addition, while renewable energy projects are included as eligible green projects and no fossil fuel based heating and electricity generation can be financed under this framework, ILPC is nevertheless exposed to a highly coal dependent electricity grid of the country (s. background).

The need for a quantified baseline is particularly pertinent in case of new buildings. In the case of refurbishing existing buildings, a comparison will be made before and after installation of measures to reduce energy or water consumption, for example. For new and refurbished buildings, the EDGE methodology is a 20% improvement over the baseline depending on new building practices – that means the baseline is set through new buildings coming onto the market. The comparison to IFC's base case scenario is determined on a regional or city level based on building codes, regulations, common building practices and policy objectives. The calibrated baseline is expected to have variations only on small levels and are undergoing regular updates planned every three years under the consultation of external experts such as the Green Building Council. Nevertheless, this approach features a pitfall of overestimating or underestimating the respective contextual ambitions, e.g., assuming lower cooling or higher heating demand than actually required. In addition, the baseline for embodied energy in building materials still has some gaps, such as transport of building materials and uses emission factors that might vary significantly for some building materials.

Another pitfall relates to India's Nationally Determined Contributions for achieving the objectives under the Paris Agreement. India's NDC covers emissions reduction objectives that are more ambitious than the eligibility criteria for the project categories (s. background).

Efficiency improvements may lead to rebound effects. When the cost of an activity is reduced there will be incentives to do more of the same activity. Only marginally more energy efficient warehouses could lead to an overall increase of fossil fuel based energy consumption. ILPC should be aware of such effects and aim to avoid green financing of projects where the risk of rebound effects is particularly high.

While the issuer informed us that ILPC's warehouses have good public transport access, ILPC does not have binding criteria regarding public transport access of its warehouses. In addition, ILPC has a systematic approach to physical and transition climate risk assessment, but does not yet screen for climate risks according to TCFD recommendations. ILPC's buildings incorporate climate resilience features in the design phase such as flood prevention, extreme weather adaptation and wind speed. Systematic physical risk assessments are especially important, as extreme weather events, in combination with sea level rise in coastal areas, in addition to increases in heavy precipitation and flooding in urban areas, have already been observed and are expected to increase across the range of climate scenarios explored in the IPCC 4th Assessment Report.^{17,18} This is of particular concern as uninsured losses were, e.g., in 2017 more than double the insured losses (Swiss Re Institute 2018). In some countries vulnerable to climate change insurance penetration is under 1 percent including, e.g., India, but also Vietnam, Philippines, Indonesia, Egypt and Nigeria. (Lloyd's of London 2018).

¹⁷ Shades of Climate Risk, CICERO 2017 (<https://cicero.oslo.no/en/climateriskreport>)

¹⁸ Flood Risk for Investors, CICERO 2018 (<https://www.cicero.oslo.no/en/posts/news/half-of-flooding-damage-left-uninsured>)



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
0	ILPC Green Finance Framework, March 2020	
1	Annual Report IndoSpace	IndoSpace's annual report
2	Environmental compliance reports	Additional compliance reports
3	GLP ESG Policy	GLP's ESG policy document
4	EDGE Methodology version 2	EDGE methodology description
5	Compliance report for Industrial/Warehousing/Logistics Assembling park, December 2019	ILPC's compliance report
6	EDGE Certificates	ILPC's EDGE certificates for its warehouses
7	EDGE User Guide for All Buildings	User guide for the EDGE certification
8	GHG Emission report CHAKAN III	GHG emissions report for ILPC's Chakan Park III
9	Climate Change Due Diligence Report	ILPC has appointed EY to conduct a climate change due diligence assessment an upcoming investment
10	IndoSpace Core Investment Reco_Climate Change extract_vSent	Document summarizing ILPC's approach toward climate related risks
11	Policy and Legal Risk Assessment (Carbon tax etc.)	Risk assessment on carbon tax / Emission Trading Scheme introduction in India
12	Climate Change Pre-Acquisition Checklist vF	ILPC's pre-acquisition diligence template
13	Market Risk Assessment_V1	ILPC's market risk assessment template



Appendix 2: About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).

