

ASSESSMENT

1 July 2024



Contacts

Muhammad Ibrahim,  
CFA  
Associate Lead Analyst-Sustainable Finance  
muhammad.ibrahim@moody's.com

Jiahuan Liu  
Sustainable Fin Associate  
jiahuan.liu@moody's.com

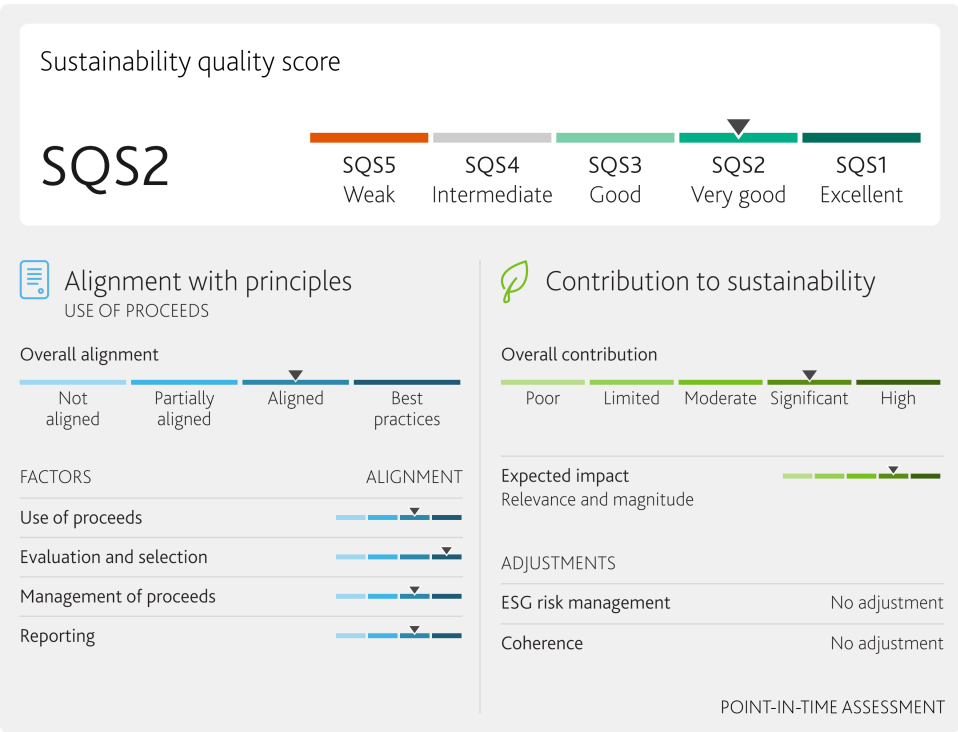
Jeffrey Lee  
VP-Sustainable Finance  
sukjoonjeffrey.lee@moody's.com

CapitaLand Integrated Commercial Trust

Second Party Opinion – Green Finance Framework Assigned  
SQS2 Sustainability Quality Score

Summary

We have assigned an SQS2 Sustainability Quality Score (very good) to CapitaLand Integrated Commercial Trust's (CICT) green finance framework dated June 2024. CICT has established its use-of-proceeds framework with the aim to finance projects across six eligible green categories. The framework is aligned with the four core components of the International Capital Market Association's (ICMA) Green Bond Principles (GBP) 2021 (including the June 2022 Appendix 1), and the Loan Market Association, the Asia Pacific Loan Market Association and the Loan Syndications and Trading Association's (LMA/APLMA/LSTA) Green Loan Principles (GLP) 2023. The framework also demonstrates a significant contribution to sustainability.



## Scope

We have provided a Second Party Opinion (SPO) on the sustainability credentials of CapitaLand Integrated Commercial Trust's green finance framework, including the framework's alignment with the ICMA's GBP 2021 (including the June 2022 Appendix 1) and the LMA/APLMA/LSTA's GLP 2023. Under its framework, the issuer plans to finance projects across six green categories, as outlined in Appendix 2 of this report.

Our assessment is based on the last updated version of the framework received on June 2024, and our opinion reflects our point-in-time assessment<sup>1</sup> of the details contained in this version of the framework, as well as other public and non-public information provided by the issuer.

We produced this SPO based on our [Framework to Provide Second Party Opinions on Sustainable Debt](#), published in October 2022.

## Issuer profile

[CapitaLand Integrated Commercial Trust](#) (CICT, A3 stable) is the largest real estate investment trust (REIT) listed on Singapore Exchange Securities Trading Limited, with a market capitalization of around SGD13.1 billion as of 30 May 2024. The REIT has 21 properties in Singapore, two in Germany and three in Australia, primarily focused on the retail and office segments. CICT is managed by CapitaLand Integrated Commercial Trust Management Limited, a wholly owned subsidiary of CapitaLand Investment Limited (CLI), a leading global real asset manager with a strong foothold in Asia.

## Strengths

- » Most of the proceeds are likely to be allocated to green buildings that achieve the Green Mark Gold<sup>PLUS</sup> or above certification, which is in line with the Singapore-Asia Taxonomy's green classification activity.
- » Objectives set are defined, relevant and coherent for all project categories, and benefits are measurable and will be quantified.
- » Environmental Impact Assessment will be conducted during the feasibility stage of development projects.

## Challenges

- » Thresholds of eligibility are not well defined for some project categories, such as energy efficiency and waste management.
- » Reporting will be conducted until the full allocation of proceeds and in case of material changes but not until the maturity of the bond or repayment of the loan.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody's.com> for the most updated credit rating action information and rating history.

## Alignment with principles

CICT's green finance framework is aligned with the four core components of the ICMA's GBP 2021 (including the June 2022 Appendix 1) and the LMA/APLMA/LSTA's GLP 2023:

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Green Bond Principles (GBP) | <input type="checkbox"/> Social Bond Principles (SBP)                 | <input checked="" type="checkbox"/> Green Loan Principles (GLP)       |
| <input type="checkbox"/> Social Loan Principles (SLP)           | <input type="checkbox"/> Sustainability-Linked Bond Principles (SLBP) | <input type="checkbox"/> Sustainability Linked Loan Principles (SLLP) |

## Use of proceeds



### Clarity of the eligible categories - **ALIGNED**

CICT has clearly communicated the nature of expenditures, eligibility and exclusion criteria for the eligible categories. The eligible projects will be located in Singapore, Germany and Australia based on its property portfolio. The issuer has shared the key building certification schemes to be used as well as the certification levels to be achieved for the eligible green buildings. However, some categories do not have clearly stated eligibility thresholds, notably energy efficiency, waste management and sustainable water management.

### Clarity of the environmental objectives – **BEST PRACTICES**

CICT has clearly outlined the relevant environmental objectives associated with the eligible categories. The issuer has referenced the United Nations' (UN) Sustainable Development Goals (SDGs) in articulating the objectives of the eligible categories, and the objectives are coherent with these recognised international standards.

### Clarity of the expected benefits – **ALIGNED**

CICT has identified relevant expected environmental benefits for mostly all eligible categories, except the green building category. The benefits identified are measurable and will be quantified in the issuer's impact reporting. There is no clear commitment on communicating the estimated share of refinancing at the time of a given issuance and we lack visibility into the look-back period.

### Best practices identified - use of proceeds

- » Objectives set are defined, relevant and coherent for all project categories
- » Benefits are measurable and quantified for all projects, either ex-ante with clear baselines or with a commitment to do so in future reporting

## Process for project evaluation and selection



### Transparency and quality of process for defining eligible projects – **BEST PRACTICES**

CICT has established a clear process for determining the eligibility of projects, with granular decision-making criteria formalised in its public framework. CICT's finance team will review and select eligible green projects, and may consult relevant subject matter experts from the property managers, as part of the selection process. The eligible green project list will be jointly reviewed and approved by the chief executive officer and chief financial officer on an annual basis. Management, on a monthly basis, assesses the upcoming green certification expiry and whether the minimum standard will be met or not, and the additional works required. In the case of divestment or if a project no longer meets the eligible green project eligibility criteria, CICT will reallocate the funds to one or more eligible green projects. The issuer has shared with us that the process for evaluating, selecting and monitoring projects will be traceable through internal documentation.

### Environmental and social risk mitigation process – BEST PRACTICES

The environmental and social (E&S) risk mitigation process will be conducted through an Environmental Impact Assessment (EIA) during the feasibility stage of development projects. The EIA focuses on identifying any environmental threats or opportunities related to the project site and its surroundings, covering areas such as floods, biodiversity, air quality, noise, connectivity, heritage and resources. In addition, the assessment also covers mitigation measures for the associated risks. The board reviews climate-related initiatives and regularly evaluates E&S controversies as part of its Enterprise Risk Management (ERM) framework, with updates submitted to the board biannually.

#### Best practices identified - process for project evaluation and selection

- » The roles and responsibilities for project evaluation and selection are clearly defined and include relevant expertise
- » There is evidence of continuity in the selection and evaluation process through the life of the financial instrument(s), including compliance verification and procedures to undertake mitigating actions when needed
- » The process for project evaluation and selection is traceable
- » Material environmental and social risks for most project categories are identified
- » Presence of corrective measures to address environmental and social risks across projects
- » ESG controversies are monitored

### Management of proceeds



### Allocation and tracking of proceeds – ALIGNED

CICT has defined a clear process for the management and allocation of its green finance transactions (GFT) in its publicly available framework. Net proceeds under the framework will be held in the issuer's general treasury and will be tracked to map eligible assets against green financing transactions, and this is conducted on a monthly basis. The issuer commits to allocate GFT proceeds within 36 months.

### Management of unallocated proceeds – BEST PRACTICES

The Issuer has indicated that any unallocated proceeds will not be used for any E&S controversial activities and temporarily unallocated proceeds may be invested according to CICT's treasury policy for short-term investments, such as cash or cash equivalent instruments. In the case of divestment or if a project no longer meets the eligible green project eligibility criteria, the issuer will reallocate the funds to one or more other eligible green projects.

#### Best practices identified - management of proceeds

- » Broad disclosure of a clearly articulated and comprehensive management of proceeds policy to external stakeholders; bondholders or lenders at a minimum
- » Disclosure on temporary placement and presence of exclusion criteria toward environmentally or socially harmful activities
- » Commitment to reallocate proceeds to projects that are compliant with the framework

## Reporting



### Transparency of reporting – ALIGNED

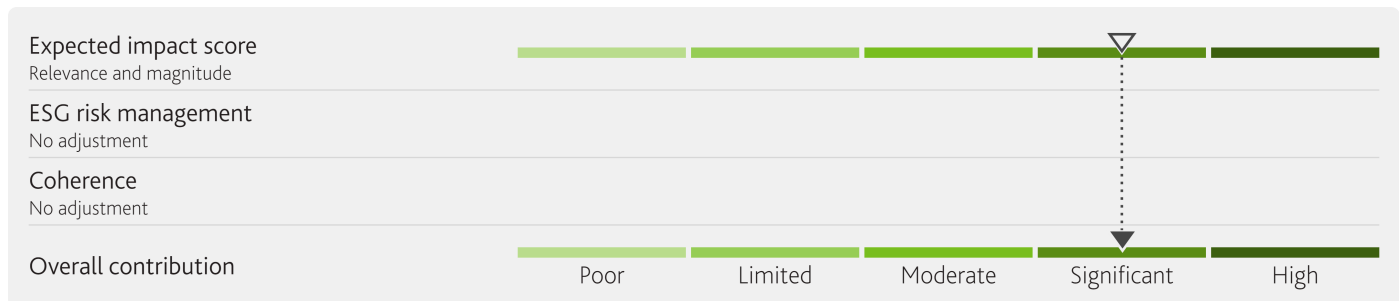
CICT is committed to provide allocation reporting on an annual basis until all the net proceeds have been allocated. Green loan agreements have provisions for declassification of information. As shared by CICT, allocation reporting will be done at the category level and includes information of projects and descriptions, and the amount of proceeds allocated to the eligible category. Impact reporting will be done at the category level, and the issuer has identified relevant impact reporting indicators for nearly all the eligible categories. The issuer commits to provide methodology and underlying assumptions on E&S impacts in its annual sustainability report. There is no clear commitment on whether allocation reporting and impact reporting will be externally verified.

### Best practices identified - reporting

- » Reporting on allocation of proceeds and benefits done at least at eligible category level
- » Exhaustive allocation reporting – balance or % of unallocated funds, types of temporary investments (e.g. cash or cash equivalent) and share of financing vs re-financing
- » Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum

## Contribution to sustainability

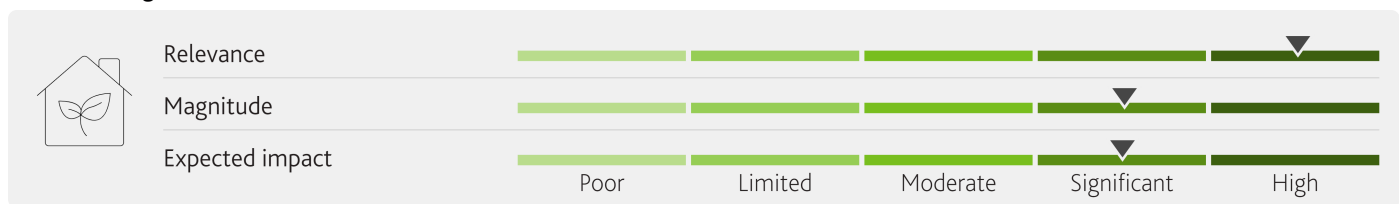
The framework demonstrates a significant overall contribution to sustainability.



### Expected impact

The expected impact of the eligible projects on green objectives is significant. Based on information provided by CICT, we expect most of the proceeds to be allocated to the green buildings category. In line with this, we have assigned the highest weight to the green buildings category when assessing the overall contribution to sustainability. A detailed assessment by eligible category is provided below.

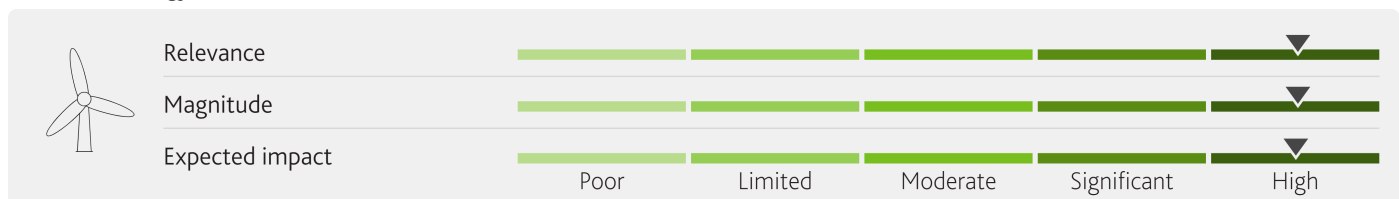
#### Green buildings



Projects financed under this category are highly relevant. The building sector is one of the largest energy consumers and greenhouse gas (GHG) emitters, accounting for 30% of global final energy consumption and 26% of global energy-related emissions in 2022.<sup>2</sup> In Singapore, where most of the issuer's property portfolio is located, buildings account for more than 20% of national emissions.<sup>3</sup> Additionally, CICT owns properties in Germany and Australia where buildings contribute to 35%<sup>4</sup> and 19%<sup>5</sup> of the national energy consumption, respectively.

The magnitude of this category is significant because the defined eligible building certifications and rating levels are likely to contribute significantly to environmental performance of the buildings. Most of the issuer's property portfolio is located in Singapore, so we expect the Green Mark Gold<sup>PLUS</sup> or Platinum certification to be primarily used. This certification requires buildings to achieve mandatory energy use intensity (EUI) thresholds according to their function, a requirement we view as positive. Moreover, Green Mark Gold<sup>PLUS</sup> or above is in line with the Singapore-Asia Taxonomy's green classification activity. The issuer has also defined LEED Gold or above as another eligibility criterion. This is recognised by the Climate Bonds Initiative (CBI) if coupled with a 30% energy improvement, however, CICT has not deemed this 30% improvement as a mandatory requirement for project eligibility. In addition, as articulated in the framework by CICT, E&S externalities are to be managed through the EIA, despite the inherent risks from new constructions.

#### Renewable energy

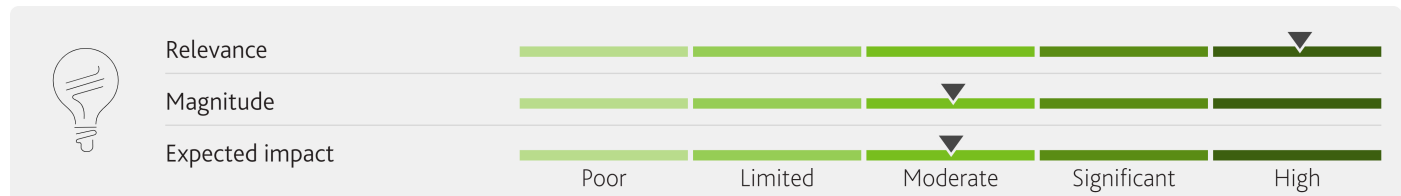


Projects financed under this category are highly relevant because the operation of buildings consumes a large amount of electricity, accounting for almost a third of final energy consumption globally in 2022.<sup>6</sup> The energy mix in the potential location of the issuer's

buildings, mostly based in Singapore, is still largely dominated by fossil fuels. Thus, increasing the installed capacity of renewable energy is highly relevant for the real estate sector as a whole, as well as in the potential project locations.

Projects in this category have a high magnitude because the renewable energy to be financed will contribute to emissions avoidance in the long term. The issuer shared with us that the proceeds under this category will exclusively finance solar photovoltaic (PV) panels, which is one of the best technologies currently available in the market, with no negative lock-in effects and limited E&S externalities.

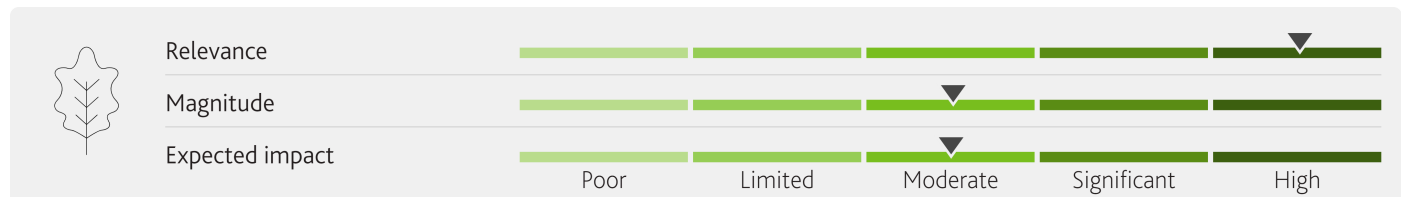
#### Energy efficiency



The relevance of this category is high because advancing energy efficiency is key to reducing building energy demand as the building floor area continues to expand. The issuer plans to finance projects related to the adoption of smart technologies and systems for optimising energy management in buildings, such as lighting and motion sensors, and replacing air-conditioning chillers or lift systems. Such systems and equipment are the main consumers of energy in the operation of buildings.

The magnitude of this category is moderate. This is because, although projects financed under this category will contribute positively to the environment, the modest target for energy efficiency improvement lacks ambition. While the eligible projects are likely to have a positive environmental impact without significant negative lock-in effects, the disclosed entity-level energy efficiency improvement threshold of 15%, which the eligible activities will contribute towards, is below the recommended industry best practice of 30%-50% in building renovations, as outlined in the CBI's building criteria.

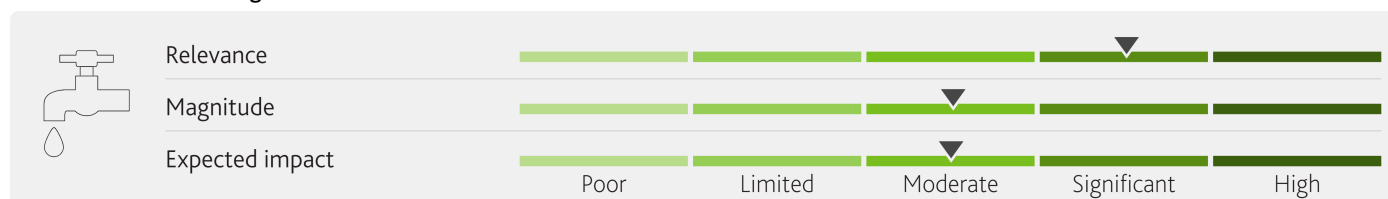
#### Waste management



The relevance of this category is high because eligible projects address an important sustainability issue for the building sector. Solid waste generation during the operation of buildings has increased significantly on a global scale, including in countries where the company operates, and is a significant source of GHG emissions, particularly methane. By improving waste management through collection, minimising waste production, reusing and recycling, and managing organic waste effectively, emissions can be reduced during the building's operational life cycle. These methods are in line with multiple national policies, including Singapore's Zero Waste Masterplan, which aims to boost the recycling rate to 70% and cut down the daily waste per person sent to landfill by 30% by 2030.

The projects in this category have a moderate magnitude because there is some visibility regarding the extent to which the waste hierarchy is followed, but at the same time the projects lack detailed thresholds. The primary focus will be on small-scale recycling and sorting bins, as well as equipment to manage food waste. Waste-to-energy projects are not included; thus, we expect limited externalities and lock-ins from the investments within this category. At the entity level, the issuer is committed to reduce waste by 20% from its day-to-day operations. However, we have limited visibility into how this entity-level commitment translates into activity-level performance.

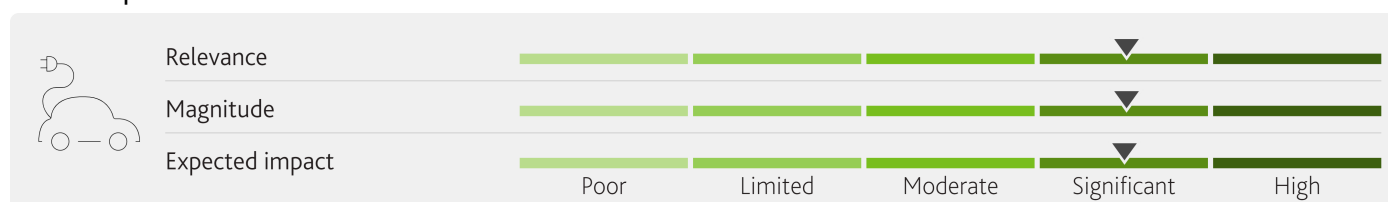
### Sustainable water management



The relevance of this category is significant. Water efficiency is a crucial aspect for the building sector, although it is less pertinent to the real estate sector in comparison to other green categories like green buildings or energy efficiency, because it does not directly tackle the sector's main sustainability issues. Water scarcity is becoming increasingly critical globally, and water security is an important sustainability issue for Asia-Pacific, including Singapore, because of the increased demand from irrigation, urbanisation and rising per capita domestic use.<sup>7</sup>

The magnitude of this category is moderate because of the lack of thresholds or visibility into the extent to which water efficiency will be achieved. The proceeds under this category is aimed to improve water saving. We lack visibility on whether the category includes water monitoring systems and leakage detection, or if the products will meet any labels, like the Public Utilities Board's (PUB) WELS voluntary standards. The activities in this category will support the entity-level target of a 15% improvement in water intensity by 2030. However, we lack specific details on technologies and thresholds, as well as whether the best available technologies will be used. The issuer expects minimum allocation to this category because most of the water efficiency-related expenditures are financed through working capital.

### Clean transportation



The relevance of this category is significant because low-carbon transportation is an important sector, although it is not the most pressing challenge for the real estate sector to address. Transportation is Singapore's third-largest emitter, accounting for 16% of the country's emissions.<sup>8</sup> The key activity of electric vehicle (EV) charging installation supports the Singapore Green Plan 2030, which promotes the adoption of cleaner vehicles, and contributes towards the Ministry of Transport's target of deploying 60,000 EV charging points across Singapore by 2030.<sup>9</sup>

The magnitude of this category is significant because the activities and associated infrastructure largely relate to promoting zero-tailpipe mobility. The installation of EV charging infrastructure will have a positive long-term environmental impact as the grid decarbonises. However, the potential support of charging for hybrid vehicles will lead to negative lock-in effects. In addition to EV charging installations, the category covers facilities related to cycling, including bicycle parking. As shared by the issuer, the category does not include any major infrastructure projects such as developing bicycle lanes.

### ESG risk management

We have not applied a negative adjustment for ESG risk management to the expected impact score. CICT has a regular review, assessment and feedback process related to ESG topics. Identified material issues are reported in a corporate risk register through the annual groupwide Risk and Control Self-Assessment (RCSA) exercise, which identifies, assesses and documents material risks and the corresponding internal controls to manage those risks. These material risks include fraud and corruption, environmental (e.g., climate change), health and safety, and human capital risks, which are ESG-relevant.

### Coherence

We have not applied a negative adjustment for coherence to the expected impact score. Projects financed under the framework align with CICT's sustainability strategy and ESG materiality matrix. Through its materiality assessment, the issuer has identified 14 material ESG topics, including climate change and carbon emissions, energy, water and waste. The issuer has set a near-term target



to achieve 46% reduction in absolute scope 1 and 2 GHG emissions by 2030. In addition, CICT aligns its sustainability goals with CLI's Sustainability Master Plan to optimise the sustainable performance of its portfolio. The plan includes a commitment to achieve net zero emissions by 2050 and targets for scope 1 and 2 emissions.

## Appendix 1 - Mapping eligible categories to the United Nations' Sustainable Development Goals

The six eligible categories included in CapitalLand Integrated Commercial Trust's framework are likely to contribute to three of the UN's SDGs, namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 7: Affordable and Clean Energy	Renewable Energy	7.2: Increase substantially the share of renewable energy in the global energy mix
	Energy Efficiency	7.3: Double the global rate of improvement in energy efficiency
GOAL 11: Sustainable Cities and Communities	Green Buildings	11.6: Reduce the adverse per capita environmental impact of cities, with special attention to air quality and waste management
	Clean Transportation	11.2: Provide access to safe, affordable, accessible and sustainable transport systems for all
GOAL 12: Responsible Consumption and Production	Waste Management	12.5: Substantially reduce waste generation through prevention, reduction, recycling and reuse
	Sustainable Water Management	12.2: Achieve the sustainable management and efficient use of natural resources

The mapping of the UN's SDGs in this SPO considers the eligible project categories and associated sustainability objectives/benefits documented in the issuer's green finance framework, as well as resources and guidelines from public institutions, such as the ICMA's SDG Mapping Guidance and the UN's SDG targets and indicators.

## Appendix 2 - Summary of eligible categories in CapitaLand Integrated Commercial Trust's framework

Eligible Project Category	Eligible Criteria	Environmental Objective	Impact Indicator
Green Buildings	New development and existing buildings that will receive any one of the following certification systems: <ul style="list-style-type: none"> <li>• Singapore Building and Construction Authority (BCA) Green Mark: Minimum certification of GoldPLUS or above;</li> <li>• LEED® (Leadership in Energy and Environmental Design): Minimum certification of Gold or above;</li> <li>• Any other Green Building label, that is an equivalent standard as above</li> </ul>	Climate Change Mitigation  Natural Resource Conservation	<ul style="list-style-type: none"> <li>• Type of scheme, certification level and m2 Gross Building Area</li> <li>• Proportion of Green Buildings in CICT portfolio (per certification system)</li> </ul>
Renewable Energy	Projects relating to the installation of equipment or associated infrastructure to generate renewable energy	Climate Change Mitigation	<ul style="list-style-type: none"> <li>• kWh of power generated from renewable energy</li> <li>• Capacity of renewable energy plant(s) constructed or rehabilitated in MW</li> <li>• Tonnes of carbon dioxide (CO2) equivalent avoided</li> </ul>
Energy Efficiency	Projects relating to the adoption of smart technologies and/or systems for optimising energy management in new and existing buildings (e.g. lighting and motion sensors) or retrofitting projects (e.g. replacing air-conditioning chiller or lift systems)	Climate Change Mitigation	<ul style="list-style-type: none"> <li>• Energy saved per year (kWh/year)</li> <li>• Energy intensity reduction (kWh/sqm)</li> </ul>
Waste Management	Facilities, systems and equipment that are used for the collection, treatment, and recycling of waste (excluding landfilling)	Pollution Prevention and Control	<ul style="list-style-type: none"> <li>• Waste removed (tonnes)</li> <li>• Waste that is prevented, minimised, reused or recycled before and after the project in percentage of total waste and/or in absolute amount (tonnes/annum)</li> </ul>
Sustainable Water Management	Water saving features to reduce domestic and commercial water consumption within new and existing buildings	Natural Resource Conservation	<ul style="list-style-type: none"> <li>• Water saved per year (m3)</li> <li>• Water intensity (m3/sqm)</li> </ul>
Clean Transportation	Projects that promote environmentally friendly transportation modes	Climate Change Mitigation  Pollution Prevention and Control	<ul style="list-style-type: none"> <li>• Number of EV charging lots installed</li> <li>• Number of bicycle parking lots</li> </ul>

## Endnotes

- <sup>1</sup> The point-in-time assessment is applicable only on the date of assignment or update.
- <sup>2</sup> International Energy Agency, [Buildings](#), July 2023.
- <sup>3</sup> Singapore Green Plan 2030, [Energy Reset](#), accessed on 26 June 2024.
- <sup>4</sup> Federal Ministry for Economic Affairs and Climate Action, [Enhancing Energy Efficiency in Buildings](#), accessed on 26 June 2024.
- <sup>5</sup> Department of Climate Change, Energy, the Environment and Water, [Buildings](#), accessed on 26 June 2024.
- <sup>6</sup> International Energy Agency, [Buildings](#), July 2023.
- <sup>7</sup> International Union for Conservation of Nature, [OECD Publishes Policy Paper on Water Governance in Asia-Pacific](#), 21 May 2021.
- <sup>8</sup> National Climate Change Secretariat, [Singapore's Emissions Profile](#), accessed on 26 June 2024.
- <sup>9</sup> Ministry of Transport, [Electric Vehicles](#), accessed on 26 June 2024.

Moody's assigns SPOs in alignment with the main tenets of the ICMA Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews and the LSTA/LMA/APLMA Guidance for Green, Social and Sustainability-Linked Loans External Reviews, as applicable; Moody's practices may however diverge in some respects from the practices recommended in those documents. Moody's approach to assigning SPOs is described in its Assessment Framework, and is subject to the ethical and professional principles set forth in the Moody's Investors Service Code of Professional Conduct.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

**CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.**

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at [www.moody's.com](http://www.moody's.com) under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V., I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Clasificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER

1412895