

ASSESSMENT

28 October 2024



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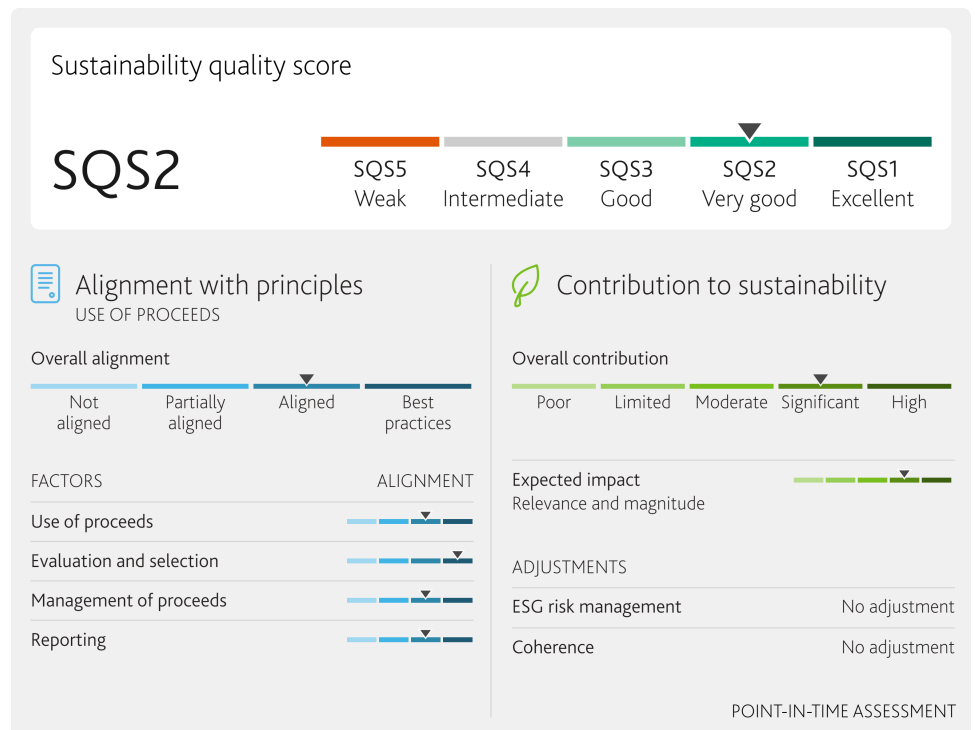
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Digital Edge (Singapore) Pte. Ltd.

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

Summary

We have assigned an SQS2 sustainability score (very good) to Digital Edge (Singapore) Pte. Ltd.'s (Digital Edge) green finance framework dated October 2024. The company has established its use-of-proceeds framework with the aim of financing projects across four 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 & Trading Association's (LMA/APLMA/LSTA) Green Loan Principles (GLP) 2023. The framework demonstrates a significant contribution to sustainability.



Scope

We have provided a Second Party Opinion (SPO) on the sustainability credentials of Digital Edge's green finance framework, including the framework's alignment with ICMA's GBP 2021 (including June 2022 Appendix 1) and LMA/APLMA/LSTA's GLP 2023. Under its framework, the company plans to issue use-of-proceeds green finance instruments to finance projects in four green categories, as outlined in Appendix 2 of this report.

Our assessment is based on the last updated version of the framework dated October 2024, and our opinion reflects our point-in-time assessment¹ of the details contained in this version of the framework, and other public and non-public information provided by the company.

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

Issuer profile

Digital Edge (Singapore) Pte. Ltd. is a data center platform company building enterprise and hyperscale sites in the Asia-Pacific (APAC) region, focusing on secure, scalable and interconnected facilities to support the evolving needs of businesses, including the demands required for Artificial Intelligence (AI), for reliable and efficient data management and connectivity. The company is headquartered in Singapore and, as of year-end 2023, has 17 sites in operation, with nine data centers in Japan.

Strengths

- » All identified benefits are measurable and quantified for project categories and the issuer intends to use an external consultant to support on impact reporting.
- » The project selection and evaluation process is transparent, including continued monitoring of the eligibility of assets throughout the life of projects.
- » All eligible categories are highly relevant and correspond to the ESG material topics identified under issuer's ESG report.

Challenges

- » The maximum look-back period of refinancing is not disclosed.

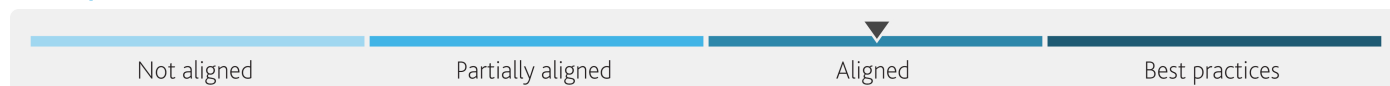
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Alignment with principles

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

- Green Bond Principles (GBP)
- Social Bond Principles (SBP)
- Green Loan Principles (GLP)
- Social Loan Principles (SLP)
- Sustainability-Linked Bond Principles (SLBP)
- Sustainability Linked Loan Principles (SLLP)

Use of proceeds



Clarity of the eligible categories – BEST PRACTICES

The net proceeds of green instruments issued by Digital Edge will be used to finance and refinance capital expenditures and operating expenditures for eligible green projects. Projects will be located in APAC mainly covering Japan, Korea, China, India, Indonesia and the Philippines. The eligibility and exclusion criteria are clearly defined for the eligible categories.

Clarity of the environmental and social objectives – BEST PRACTICES

Digital Edge has clearly outlined the environmental objectives associated with all eligible categories. All categories are relevant to the respective environmental objectives to which they aim to contribute. The environmental objectives of all eligible categories have been set against and coherent with the United Nations' Sustainable Development Goals (UN SDGs).

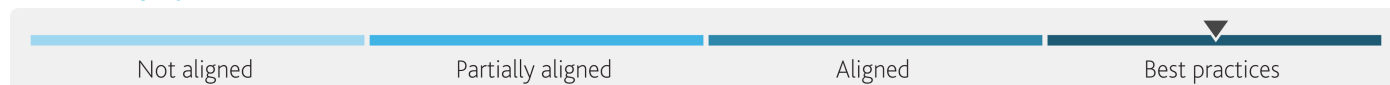
Clarity of the expected benefits – ALIGNED

Digital Edge has identified relevant expected environmental benefits for all eligible categories. The benefits identified are measurable and will be quantified in the company's impact reporting. Digital Edge is committed to disclosing the share of financing and refinancing at the point of each green instrument issuance. However, Digital Edge has not committed to establish a maximum look-back period for these eligible projects.

Best practices identified - use of proceeds

- » Eligibility criteria are clearly defined for all project categories
- » Objectives set are defined, relevant and coherent for all project categories
- » Relevant benefits are identified for all project categories
- » Benefits are measurable and quantified for all project categories, either ex-ante with clear baselines or with a commitment to do so in future reporting
- » Commitment to transparently disclose the share of proceeds used for refinancing where feasible

Process for project evaluation and selection



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

Digital Edge has shared the decision-making process for the evaluation and selection of projects in the green finance framework, which will be published on Digital Edge's website. Digital Edge applies the four-eye principle to identify, review and validate eligible projects. Relevant cross-functional teams will identify and consider potential eligible projects and the ESG committee will review these projects, cross-checking against the green finance framework's eligibility criteria. The ESG committee will also evaluate each project against the internal environmental and social risk management policies. The committee will continually monitor the eligible projects

to ensure compliance during the life of the project. The company has shared that the minutes of committee meetings and internal documentation will be used to evaluate and trace the selection and approval process of eligible projects. In the event a project no longer fulfills the eligibility criteria, or is postponed or divested, the committee will replace the project with an eligible one, where practicable.

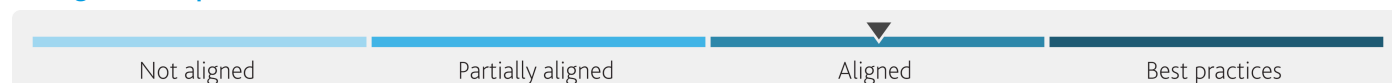
Environmental and social risk mitigation process – BEST PRACTICES

The environmental and social risk mitigation process is publicly disclosed in the green finance framework and the issuer's ESG report. Digital Edge's ESG committee will continually monitor the potential controversies, and identify and manage risks during the life of the projects. Moreover, Digital Edge engages a regional vendor to address data center equipment and infrastructure decommissioning to manage e-waste. In addition, there are measures in place to manage and reduce wastes from construction material and operations.

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

The proceeds of green finance instruments will be deposited in Digital Edge's general funding accounts and be allocated to eligible green projects. The ESG committee will monitor the allocation and use of proceeds, and adjust the balance on a quarterly basis to match allocations to eligible projects. The allocation process and its elements are covered in the green finance framework, which will be publicly available on Digital Edge's website. Digital Edge intends to fully allocate the proceeds within 36 months of issuance.

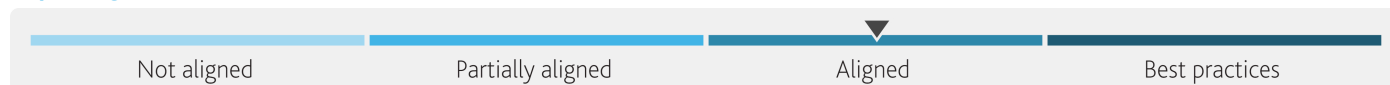
Management of unallocated proceeds – ALIGNED

Until the net proceeds of green instruments are fully allocated to the eligible projects, Digital Edge will hold or invest the balance of unallocated proceeds in cash and cash equivalents, or money market funds, or both. No temporary unallocated proceeds will be used for activities in the exclusion criteria such as fossil fuel power generation, storing or distribution assets. In case of divestment or postponement, Digital Edge will replace any ineligible projects with new eligible ones as soon as practicable and no later than within 36 months.

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
- » Commitment to reallocate proceeds to projects that are compliant with the framework

Reporting



Transparency of reporting – ALIGNED

Digital Edge will provide a report on annual basis on the use of proceeds under its framework, until the full allocation of the proceeds is achieved, and in the event of material changes. The report for green bonds will be made available to the bond holders, and to lenders, subject to agreement and lenders' requirement for green loans.

Allocation reporting will be done at the category level and will contain information about the amount of proceeds allocated to each eligible green project category, the balance of unallocated proceeds, types of temporary investments, share of financing and refinancing, the share of shareholding for the eligible projects, and detailed description on material developments, issues or controversies, if any, related to the eligible projects. Digital Edge has confirmed that the equity injected into special-purpose vehicles will be used entirely and properly for the eligible projects, and Digital Edge will only claim the outcome or benefit corresponding to its shareholdings in joint ventures.

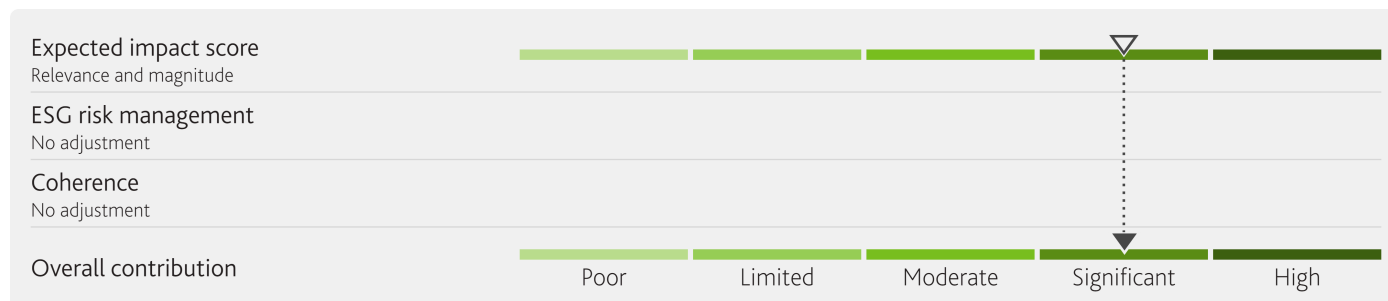
Impact reporting will be done at the category level and the company has identified clear and relevant impact reporting indicators for all eligible categories. Digital Edge intends to use an external consultant for support on impact reporting, and this consultant will assist with methodology selection and, where feasible, disclosure of such methodologies. For green bond proceeds, Digital Edge commits to independent and external verification of its allocation and impact reporting, while for green loans, provision of reports to lenders will be subject to the loan agreement and lenders' additional requirement.

Best practices identified - reporting

- » Reporting covers material developments and issues related to the projects or assets
- » 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 refinancing
- » Clear and relevant indicators to report on the expected environmental/social impact of all the projects, where feasible, or eligible categories
- » Disclosure of reporting methodology and calculation assumptions to bondholders or lenders at a minimum

Contribution to sustainability

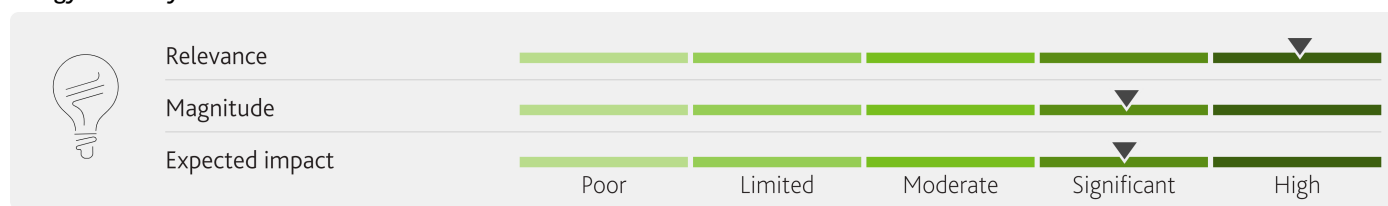
The framework demonstrates significant overall contribution to sustainability.



Expected impact

The expected impact of eligible projects on sustainability objectives is significant. Digital Edge has confirmed to us that most of the proceeds from the forthcoming issuance will be allocated primarily to energy efficiency and, subsequently, to green buildings. Consequently, we have assigned the highest weight to energy efficiency, followed by green buildings, for the purpose of determining the overall contribution to sustainability. A detailed assessment by eligible category has been provided below.

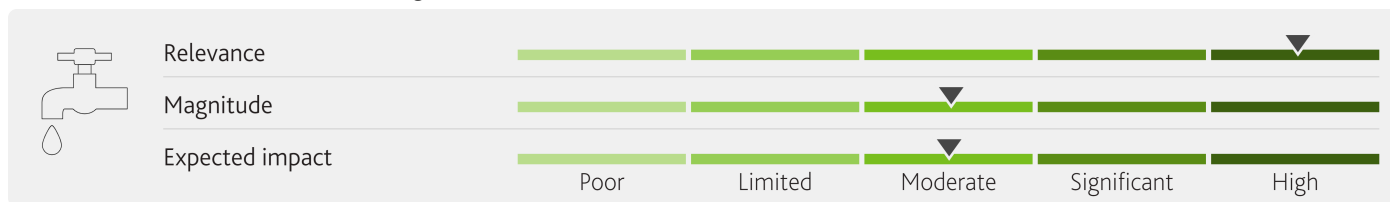
Energy efficiency



The relevance of this eligible category to the issuer is high given the intensive energy use at data centers and increasing demand for more infrastructure for digitization. Initiatives aimed at improving the energy efficiency of data center infrastructure, such as implementing efficient cooling practices, are crucial to Digital Edge. Globally, data centers account for 1%-1.5% electricity use and 1% of energy-related greenhouse gas (GHG) emissions, when coupled with data transmission networks.² In APAC, where Digital Edge operates all of its data centers, the market for data centers will likely grow the fastest over the next five years, with capacity projected to [more than double](#) by 2028. Furthermore, improving energy efficiency addresses a highly relevant sustainability challenge for the company, as its scope 2 emissions accounted for about 98% of its total emissions in 2023, per Digital Edge's latest ESG report.

Projects to be financed under this eligible category demonstrate a significant magnitude because Digital Edge's target power usage effectiveness (PUE) could lead to a long-term reduction in GHG emissions. The issuer has shared some of the means to achieving the PUE, such as using the StatePoint Liquid Cooling (SPLC) system. Digital Edge plans to finance or refinance new or existing data centers aiming for a target PUE of 1.30 in cool climates and 1.40 in warm climates under full-load conditions. These target PUE thresholds are in line with the Climate Neutral Data Center Pact (CNDCP), which we view positively. However, it should be noted that there are standards in the market that mandate more stringent criteria for PUE as a benchmark for the best available technology. For example, Beijing prescribes a PUE range from 1.15 to 1.30 based on a new data center's capacity.³ Similarly, the eligibility criteria for Singapore's Data Center Carbon Footprint Assessment (DC-CFA) Pilot Program require a PUE of 1.30, a standard influenced by Singapore's hot and humid climate.⁴ As part of its sustainability strategy, the issuer in its 2023 ESG report has announced a target to design all new greenfield developments to achieve a target annualized design PUE of 1.25 or better. Additionally, Digital Edge has committed to use refrigerants with zero ozone depletion potential (ODP) and low global warming potential (GWP) not exceeding 675.

Sustainable water and wastewater management

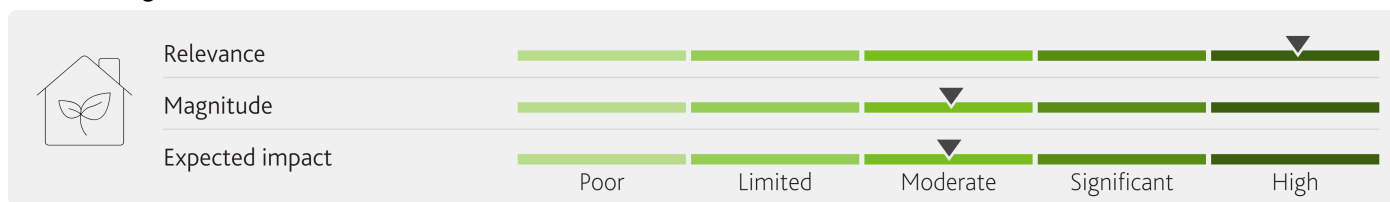


The relevance of this category is high because investing in water efficiency and conservation practices at data centers is highly important for addressing a primary sustainability issue within the sector. Data centers require a substantial amount of water for cooling purposes, which is essential for removing the heat produced by servers and IT equipment. While cooling requirements fluctuate based on the geographic location and the local climate, areas with warmer temperatures have greater demand. Furthermore, the increasing risks associated with climate change, such as drought, amplify the importance of deploying advanced cooling technologies and adopting strategies aimed at efficient use of water resources for a more sustainable management approach.

Projects financed under this category demonstrate a moderate magnitude because the upper bound 2.0 WUE threshold at 100% load may not fully address water consumption for data centres located in high water stress areas. In addition, we lack visibility into the baseline WUE, and to the extent achieving the threshold of 2.0 improves water consumption from baseline scenario. Issuer has shared in its ESG report that, of the 17 data centres, 3 data centres are located in Beijing and Jakarta which are identified by the issuer as high or extremely high water stress areas. We assume potable water is used in the data centers, and the upper bound 2.0 WUE threshold may not capture water stress situation for these 3 data centres, despite they being a small portion of the business. As a reference, CNDPC suggests for high water stress areas the WUE of 0.4 (potable water), and for medium high water stress areas the WUE of 1.0-1.1 range depending on climate⁵.

Under the category, the SPLC technology will also be financed and Digital Edge has shared with us that such technology adopted could lead to 20% water savings in hot and humid climates and 90% in cooler climates. However, there is insufficient details on the breakdown of proceeds going towards SPLC versus other activities.

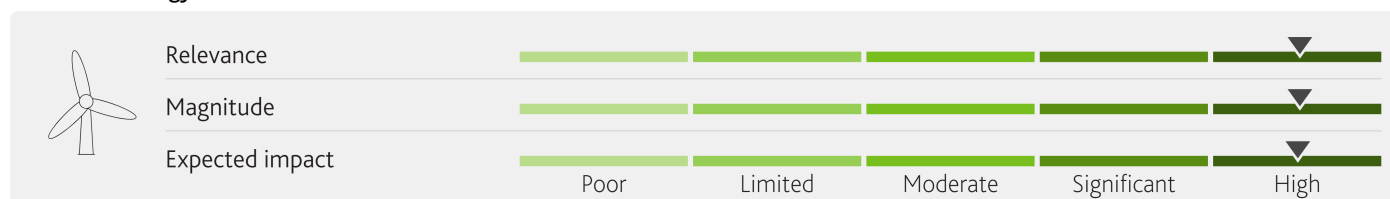
Green buildings



Projects financed under the green buildings category are highly relevant to both the company and its sector, as well as to the APAC region, because the green building certifications apply to Digital Edge's offices and data centers alike. The design, construction, operation and maintenance of buildings in a sustainable manner are critical for reducing the negative impact of the sector. Given Digital Edge's primary business focus of operating data centers, reducing energy and water use, along with other environmental impacts, is of high importance. This includes addressing concerns for biodiversity that arise from the development of new data centers on greenfield sites.

The magnitude is considered moderate because the target green building certifications are likely to contribute positively to the environment. Digital Edge plans to finance both new and existing buildings, aiming for LEED Gold or higher and BREEAM Very Good or higher ratings. In addition, the issuer has shared that where water-cooled chillers are used, the GWP of refrigerants used in the data center will not exceed 675. The green building certifications are commonly used in the market given their implied improvements in building performance. However, they may not guarantee an outstanding energy or water efficiency, such as PUE and Water Usage Effectiveness (WUE), because the point scoring system limits visibility into the actual extent of building performance.

Renewable Energy



The relevance of renewable energy is high because Digital Edge mainly operates in APAC countries, which heavily rely on fossil fuels for energy supply. Globally, data centers account for 1%-1.5% of global electricity use, according to International Energy Agency, and this share is likely to rise further. APAC is one of the fastest-growing markets for data centers and the capacity is likely to more than double by 2028. In addition, financing renewable energy projects will address reducing the issuer's scope 2 emissions, which account for 98% of its emissions.

The magnitude of this category is high as the issuer will finance onsite renewables, long-term physical Power Purchase Agreements (PPAs), which support new capacity addition, and backup generation. For onsite and physical PPAs, the type of renewable energy is specific to offshore and onshore wind and solar only. The category does not include virtual PPAs (vPPAs), RECs or offsets.

The running of data center facilities is very energy-intensive and to mitigate the challenges of high-power demand, the procurement of physical PPAs from renewable sources plays a key role in sourcing clean energy. In accordance with [RE100 technical criteria](#), procuring renewable physical PPAs is considered to have impact when it leads to an increase in the grid's renewable power capacity, such as physical PPAs tied to new projects. Issuer has confirmed that physical PPAs eligible under this category will only be from new projects, where the issuer will be the first off taker of these new projects. Given the physical PPAs are only associated with new projects, this provides visibility into the issuer's procurement process that will support more renewable electricity capacity into the system. For on-site back-up generation by biofuels such as biodiesel, or hydrotreated vegetable oil, the activities will meet lifecycle emissions of 16.0 grams of carbon dioxide equivalent per megajoule (gCO₂e/MJ) for heating/cooling and co-generation, or 100 gCO₂e per kilowatt-hour (gCO₂e/kWh) for electricity generation, in line with best market standards. For bioenergy, the issuer commits to ISO 13065: 2015 - Sustainability Criteria for Bioenergy to demonstrate its sustainable sourcing of waste feedstock.

ESG risk management

We have not applied a negative adjustment for ESG risk management to the expected impact score. The ESG committee monitors the ongoing evolution related of sustainable capital markets and the ESG-related controversies to ensure the company upholds its commitments. The issuer regularly conducts an annual review of its materiality matrix assessment. As disclosed in issuer's ESG report, 100% of its construction and operational sites are certified with ISO 45001 (Health and Safety) and ISO 14001 (Environment) Management System.

The issuer has shared cooling strategy for data centers located in water-stress areas, such as deploying SPLC technology and implementing various optimisation methods. According to issuer's ESG report, water withdrawn in regions with high or extremely high baseline water stress accounts for 1%.

Coherence

We have not applied a negative adjustment for coherence to the expected impact score. Projects financed under the framework align with Digital Edge's overall sustainability strategy and objectives. The company has set several sustainability targets such as becoming a carbon-neutral data center organization by 2030, sourcing 50% of its power from renewable or carbon-free sources by 2025, and achieving 100% by 2030. Additionally, it is striving to achieve an annualized PUE of 1.25 or better at full load for new-build data centers and committing to minimize water consumption, wherever feasible, with a WUE target range of between 1.00 to 1.50 for new data centers.

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

The four eligible categories included in Digital Edge's Green Finance Framework are likely to contribute to three of the United Nations' (UN) Sustainable Development Goals (SDGs), namely:

UN SDG 17 Goals	Eligible Category	SDG Targets
GOAL 6: Clean Water and Sanitation	Sustainable Water and Wastewater Management	6.4: Increase water-use efficiency across all sectors and ensure sustainable supply of freshwater to reduce water scarcity
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

The UN SDGs mapping 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 SDG Mapping Guidance and the UN SDG targets and indicators.

Appendix 2 - Summary of eligible categories in Digital Edge's Green Finance Framework

Eligible Category	Eligible Criteria	Environmental Objectives	Impact Reporting Metrics
Energy Efficiency	<ul style="list-style-type: none"> Investments in new data centers that are designed to achieve an annualized PUE target of 1.30 and 1.40 or lower at 100% load for data centers in cool climates* and warm climates* respectively Financing and refinancing of existing data centers that have an annualized design PUE of target of 1.30 and 1.40 or lower at 100% load for data centers in cool climates and warm climates respectively 	Climate Change Mitigation	<ul style="list-style-type: none"> Design or operating PUE GHG emissions avoided (tCO2e) % of energy reduction
Sustainable Water and Wastewater Management	<p>Expenditures, investments and cost for construction, extension, upgrade, operation and renewal of sustainable water management projects that result in new or existing data centers that have an annualized design Water Usage Efficiency (WUE) of 2.0 or lower at 100% load, such as:</p> <ul style="list-style-type: none"> Water-efficient cooling solutions. e.g. StatePoint Liquid Cooling (SPLC) technology Closed-loop hybrid cooling tower systems Water treatment program with advanced filtration & treatment technology Rainwater collection system Water infrastructure upgrades for water use optimization (including metering and reporting, upgrades and replacement of components in mechanical cooling equipment using water, shared control systems and technology) 	Sustainable Water and Wastewater Management	<ul style="list-style-type: none"> Annual volume of wastewater treated or avoided (m3/a and p.e./a and as %) Annual absolute (gross) water use before and after the project (m3/a) Annualized design Water Usage Efficiency (WUE) (L/IT kWh) Reduced water use (m3 or %) Reduced or avoided wastewater discharge (m3)
Green Buildings	<p>Expenditures related to the design, construction and maintenance of buildings or office that have recently, as a result of the investment, are expected to achieve minimum green building certification or other equivalent local and regional certifications as follows:</p> <ul style="list-style-type: none"> LEED: Gold or Platinum; or BREEAM: Very good, Excellent or Outstanding 	Climate Change Mitigation Natural Resources Conservation	<ul style="list-style-type: none"> Number and type of certification of green building certifications obtained GHG emissions avoided (tCO2e) Expected energy savings per year (KWh/m2)
Renewable Energy	<p>Expenditures, investments and costs associated to the construction, development, acquisition, production and procurement of renewable energy, including:</p> <ul style="list-style-type: none"> Long term Power Purchase Agreement (PPAs) Onsite renewable energy projects Onsite back up generation by bio fuels such as bio diesel, or Hydrotreated Vegetable Oil (HVO) 	Climate Change Mitigation	<ul style="list-style-type: none"> Annual GHG emissions reduced/avoided (tCO2e) Annual renewable energy generation (MWh) Percent renewable energy for portfolio (MWh renewable / MWh electricity consumption)

* Cool climates are those that are at or below cooling degree day measurement of 49.99 based on for the IEA Weather, Climate and Energy Tracker. Cool climates include but not limited to China, Japan and South Korea.

* Warm climates are those that are at or below cooling degree day measurement of 50.00 based on for the IEA Weather, Climate and Energy Tracker. Warm climates include but not limited to Singapore, Hong Kong, India, Indonesia, and Philippines.

Endnotes

- Point-in-time assessment is applicable only on the date of assignment or update.
- International Energy Agency, [Data Centres and Data Transmission Networks](#), 11 July 2023
- Beijing Municipal Commission of Development and Reform, [Regulations on Further Strengthening Energy Conservation Review of Data Center Projects \(in Chinese\)](#), 5 July 2023
- Infocomm Media Development Authority, [ANNEX A: Summary of Pilot DC-CFA Key Parameters & Criteria](#), accessed on 16 August 2024
- [Climate Neutral Data Center Pact: Self Regulatory Initiative.](#)

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.

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