Sustainable Fitch
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Public Finance
Government-Related Entities
China

HKG TAXONOMY ALIGNED

Shandong Hi-Speed Group Co., Ltd.

Second-Party Opinion — Green Finance Framework

Excellent ✓ | Good | Aligned | Not Aligned

Pillar	Alignment	Key Drivers
Use of Proceeds	Excellent	• Sustainable Fitch views Shandong Hi-Speed Group Co., Ltd.'s (SHS) use of proceeds (UoP) categories to be aligned with the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles, and to have an overall excellent environmental impact. • The eligible green projects of renewable energy, clean transportation, energy efficiency and green buildings primarily focus on climate change mitigation. They play a crucial role in decarbonising and reducing the environmental impact of the energy, transport, building and digital information sectors.
Use of Proceeds – Other Information	Good	• It is positive that a well-defined exclusion list is included in the framework. The three-year lookback period aligns with standard market practice. • The eligible green projects include equity investments into pure-play companies. SHS has communicated clearly to us on the approach and intended environmental benefits of the investment, which aligns with standard market practice.
Evaluation and Selection	Excellent	• We consider the process as robust and detailed, with a commitment by SHS to conduct environmental and social risk assessments and due diligence. The process separates the duties of project proposal and approval and is overseen by a committee that includes sustainability expertise.
Management of Proceeds	Good	• The approaches of depositing proceeds into general funding accounts with virtual earmarking and using unallocated proceeds according to SHS's standard liquidity policy both align with standard market practice. We view positively that SHS will monitor the financed projects and remove and replace them if they no longer meet the eligibility criteria.
Reporting and Transparency	Excellent	• SHS has committed to annual reporting until full allocation or until maturity, with additional reporting in the event of material developments; this aligns with market best practices. • The reporting will be available for each green financing instrument, providing greater transparency to investors. Impact reporting includes relevant environmental indicators and is subject to external review.

Relevant UN Sustainable Development Goals

Framework Type	Green	
Alignment	✓	Green Bond Principles 2021 (ICMA) (with appendix I from June 2022)
	✓	Green Loan Principles 2025 (LMA/LSTA/APLMA)
Date assigned	7 April 2025	

See Appendix B for definitions.

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Use of Proceeds Summary – ICMA Categories

Green	Renewable energy Clean transportation Energy efficiency Green buildings

Source: SHS green finance framework (March 2025)

Framework Highlights

We consider transactions under SHS's green finance framework to be aligned with the Green Bond Principles (with appendix I from June 2022) by the ICMA and the Green Loan Principles by the LMA, LSTA and APLMA.

This new framework replaces SHS's previous green finance framework published in 2022. The major updates in this framework include the removal of the pollution prevention and control UoP category, the addition of data centres into eligible green projects, the addition of equity investment in pure-play companies, alignment with the Hong Kong Taxonomy for Sustainable Finance (HKG taxonomy), and other amendments on the UoP eligibility criteria.

We expect the transactions under this framework to be used to finance the railway business and other clean road-related infrastructure directly managed by the company and its subsidiaries (collectively referred to as the group). In addition, we also expect the proceeds will be channelled to the group's portfolio companies in the clean energy sector and digital infrastructure sector. Overall, the framework will support the group's strategic development that aligns with the national and provincial goals, while pursuing positive environmental benefits.

The eligible UoP categories include renewable energy, clean transportation, energy efficiency and green buildings. The estimated share of proceeds to each UoP category is not specified in the framework.

We expect that renewable energy projects will increase the capacity and generation of clean energy, reducing reliance on fossil fuels. Clean transportation initiatives will facilitate the adoption of zero-emission vehicles and infrastructure, thereby decreasing transportation-related emissions.

Energy-efficiency projects will lead to substantial energy savings and reduced carbon footprints through the modernisation of systems and technologies. Green buildings, which include green building certifications and energy-efficient data centres, will achieve high standards of energy efficiency and sustainability, contributing to reduced energy consumption and emissions in both the building and digital infrastructure sectors.

In addition, SHS can use proceeds for equity investment in pure-play companies. The ICMA Guidance Handbook 2024 confirms that the acquisition of pure-play companies can be an acceptable use of green bond proceeds under some circumstances. According to the handbook, issuers should demonstrate that the investments lead to meaningful impact, such as supporting the growth of the company's environmentally beneficial activities.

According to our communication with SHS, it plans to prioritise direct investments and subscriptions for newly issued shares to drive environmental impact by funding companies and projects with environmental benefits. SHS also aims to acquire significant stakes in pure-play companies to influence their strategic direction and sustainability practices.

Investments will focus on generating green synergies, such as partnerships between renewable energy companies and data centres. Additionally, SHS will exclude companies if 10% of their activities are on the exclusion list, reducing the risk of environmentally or socially harmful investments.

SHS has aligned its eligibility criteria of its eligible green projects with the HKG taxonomy. We consider the HKG taxonomy to be a science-based regional taxonomy and alignment demonstrates a good practice to ensure environmental contributions.

We only assessed alignment for the framework's activities that are eligible under the HKG taxonomy, including the financing and refinancing of projects related to solar PV technology, concentrated solar power technology, wind power, public transportation, zero-emission vehicles, and new and existing green buildings. Our conclusion is that this framework's taxonomy-eligible activities meet the HKG taxonomy's relevant criteria and thresholds.

Source: Sustainable Fitch, SHS green finance framework (March 2025)

Entity Highlights

SHS is a state-owned enterprise operating under the direct supervision of the State-owned Assets Supervision and Administration Commission of Shandong province. SHS is primarily engaged in the investments in, and construction, operation and management of, roads, expressways, bridges and tunnels in Shandong province.

SHS's listed subsidiaries include Shandong Hi-Speed Company Limited, Shandong Hi-Speed Holdings Group Limited, Shandong Luqiao Group Co., Ltd., Qilu Expressway Company Limited, Weihai Bank Co., Ltd, and Shandong Hi-Speed New Energy Group Limited.

SHS reported total assets of over CNY1,510 billion (USD213 billion) and total revenue of CNY241 billion as of end-2023.

SHS's primary revenue in 2023 came from engineering and construction (33.1%), followed by the petrochemical business (24.8%), sale of goods (16.7%), toll income (14.8%) and railway business (2.2%). The remaining 8.4% covers activities such as electric heating, sale of materials and leasing.

We consider SHS as a major provider of essential transport services and infrastructure to populations in Shandong province, operating expressways with a total length of 9,070km and railways with a total length of 634km as of end-2024. SHS's investments in expressways and railways span beyond Shandong province and include other regions in China such as Sichuan, Henan and Yunnan provinces.

According to the International Energy Agency (IEA), the transport sector was responsible for 8.3% of CO_2 emissions in China in 2022. Rail transport is also the least emissions-intensive mode of passenger transport and accounted for only 1.1% of carbon emissions from the global transport sector in 2022.

As such, we view SHS's business activity related to railways as environmentally positive, as it enables a shift towards a cleaner form of transport that contributes to climate change mitigation.

However, we view some of SHS's business activities related to expressways, engineering and construction as well as the sale of petrochemicals as environmentally negative, as they are associated with relatively high GHG emissions and intensive resource consumption.

SHS recognises that low-carbon transport plays a major role in facilitating a modal transportation shift and enabling the transition to a low-carbon economy. SHS has established internal environmental protection policies to minimise negative environmental impacts during the construction and operation of expressways, roads, bridges and railways. SHS also indicated its commitment to promote energy conservation and emissions reduction, such as through the installation of solar panel-powered lighting on its expressways.

However, SHS did not demonstrate to have established a formal sustainability strategy and has not published any sustainability reports at the group level. We consider the adoption of formal sustainability strategies and the regular publication of sustainability reports that aligns with global sustainability reporting standards, such as those set by the Global Reporting Initiative or the Sustainability Accounting Standards Board, to enhance transparency and the ability for investors to track and understand the group's sustainability policies, initiatives and performance.

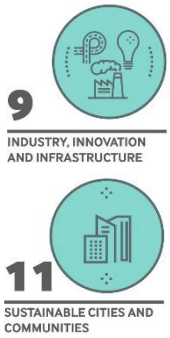
Source: Sustainable Fitch, SHS green finance framework (March 2025), SHS annual report 2023

Use of Proceeds – Eligible Projects	Alignment: Excellent	
Company Material	**Sustainable Fitch's View**	
Renewable energy – solar power		
• Development, investment, acquisition, production, installation, operation, transmission and storage of existing, or new projects related to the energy from solar (PV and concentrated solar power with a minimum 85% of power generation derived from solar sources), including manufacture of dedicated components for solar power.	• The renewable energy UoP category has a positive environmental impact, as it contributes to climate change mitigation and clean energy transition. • China is the world's largest GHG emitter primarily due to coal combustion. As such, we consider the expansion of renewable energy to be essential in reducing the country's overall carbon footprint. • Solar power generation using solar PV technologies and concentrated solar power technologies produces zero direct emissions and entails minimal pollution during operation compared to conventional sources such as fossil fuels. It is an important energy source for clean energy and net-zero transition. • International taxonomies, such as the EU taxonomy, recognise energy generation from solar power, including both solar PV and concentrated solar power, as eligible activities under the climate change mitigation objective and it is derogated from complying with any substantial contribution criteria (SCC). • The eligibility criterion of minimum 85% of power generation being derived from solar sources for concentrated solar power aligns with the Climate Bonds Initiative taxonomy's criteria; however, we view the 15% provision for deriving energy from non-solar sources as potentially reducing the contribution to climate change mitigation, as the backup power could be generated from fossil fuels or other sources of energy that are not green. • Solar PV and concentrated solar power are covered in the HKG taxonomy under the activities of electricity generation using solar PV technology and electricity generation using concentrated solar power technology. • There are no criteria that need to be complied with for electricity generation using concentrated solar power technology under the HKG taxonomy. SHS confirmed to us that it will comply with the requirements, such as decay rates and PV conversion efficiency, for solar PV. • The manufacturing of dedicated components for renewable energy is also eligible as a green enabling activity under the EU taxonomy. Following our engagement, SHS indicated that it intends to mainly focus on the renewable energy power generation, and instances of investments towards components manufacturing are relatively low. • We consider investments under this UoP to contribute to UN Sustainable Development Goal (SDG) 7 (affordable and clean energy) through increasing the renewable energy share in the energy mix. • We expect this UoP to be aligned with the renewable energy category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.	
Renewable energy – wind power		
• Development, investment, acquisition, production, installation, operation, transmission and storage of existing or new projects related to wind energy (onshore and offshore), including the manufacture of dedicated components for wind energy.	• Similar to solar power, wind power generation also produces zero direct emissions and entails minimal pollution during operation compared to conventional fossil fuels. • Construction and operation of both onshore and offshore wind facilities are eligible under the EU taxonomy for substantial contribution to the climate change mitigation objective. They are also derogated from complying with any SCC.	

	• Wind power is covered in the HKG taxonomy under the activity of electricity generation from wind power, without the need to meet any technical criteria. • We consider investments under this UoP to contribute to SDG 7 and expect this UoP to be aligned with the renewable energy category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.	
Renewable energy – hydropower		
• Development, investment, acquisition, production, installation, operation, transmission and storage of existing or new projects related to hydropower, including pumped storage, with either a power density above 5W/sqm or life-cycle GHG emissions intensity below 100gCO_2e/kWh, as well as the manufacture of dedicated components for hydropower.	• Hydropower is also one of the most prevalent renewable energy sources, producing zero direct emissions. The IEA reported that hydropower is currently the largest renewable source of electricity globally. • However, there is a risk of elevated life-cycle GHG emissions due to the release of methane during reservoir creation, water pollution and impacts on biodiversity if not properly managed. • Therefore, international taxonomies often set requirements regarding the type of hydropower, power density or life-cycle GHG emissions intensity to ensure that the hydropower projects contribute to climate change mitigation. • We consider it positive that SHS has established eligibility criteria that resonate with the EU taxonomy SCC for electricity generation from hydropower. • Specifically, hydropower plants with power density above 5W/sqm are likely to emit not more than 100gCO_2e/kWh, according to the International Hydropower Association's 2018 Hydropower Status Report. Therefore, they are exempted from carrying out life-cycle GHG emissions assessments. • The criterion on life-cycle GHG emissions intensity ensures that the hydropower plants will contribute positively to climate change mitigation by setting a specific threshold. • Following our engagement, SHS indicated that the life-cycle GHG emissions assessment will be conducted and calculated using standards such as calculation tools and guidance under the GHG Protocol, ISO 14064-1:2018 or China's GHG emissions accounting methods and reporting guidelines for power companies, which will also be verified by a third party. • We deem that SHS's hydropower projects will comply with the EU taxonomy SCC because the company follows the ISO 14064-1:2018 standard, a calculation standard recognised by the EU taxonomy, and is obtaining third-party verification. • The EU taxonomy does not explicitly recognise the GHG Protocol and Chinese local standard; however, we consider these standards to be scientifically robust and credible for GHG emissions assessment. • In China, the construction of hydropower plants with an installed capacity of 1MW or above, or that involves environmentally sensitive zones such as national parks, nature reserves, marine parks and other protected areas, is required to undergo environmental impact assessments to address potential environmental impact. • SHS indicated in its framework that it will perform comprehensive risk assessment and due diligence, including environmental and social risks and due diligence for all projects. • The construction and operation of pumped hydropower storage is also eligible as a green enabling activity under the storage of electricity and is automatically aligned with the EU taxonomy SCC for climate change mitigation. • Electricity generation from hydropower and pumped hydropower storage are not yet covered in the HKG taxonomy.	7 AFFORDABLE AND CLEAN ENERGY

	• We consider investments under this UoP to contribute to SDG 7 and expect this UoP to be aligned with the renewable energy category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.	
Renewable energy – geothermal		
• Development, investment, acquisition, production, installation, operation, transmission and storage of existing or new projects related to geothermal with a life-cycle GHG emissions intensity below 100gCO_2e/kWh, as well as the manufacture of dedicated components for geothermal energy.	• We consider investments towards geothermal energy to be environmentally positive, as it acts as a clean and sustainable power source with minimal GHG emissions compared to fossil fuels, contributing to climate change mitigation. • The IEA reported that geothermal meets less than 1% of global energy demand but marked its potential to meet up to 15% of global electricity demand growth to 2050 along with technology improvements. • Unlike solar and wind energy, geothermal energy is not dependent on weather conditions. As a continuous energy source, it can contribute to the stability of electricity grids, supporting the integration of other types of renewable energy such as solar and wind power. • Geothermal energy facilities typically require less land resources than other energy facilities such as wind turbines and PV panels, reducing the ecological footprint and preserving natural habitats. • It is positive that SHS has set eligibility criteria that align with the EU taxonomy's life-cycle GHG emissions threshold from the generation of electricity from geothermal energy, which requires emissions to be lower than 100gCO_2e/kWh. The calculation and verification requirements for geothermal energy are the same as those for hydropower projects. • SHS informed us that it will calculate and verify the life-cycle GHG emissions of its geothermal projects using the same methodology as for its hydropower projects. This approach leads to partial alignment with the EU taxonomy SCC, which was discussed previously in the hydropower commentary. • Geothermal-related activities are not yet covered in the HKG taxonomy. • We consider investments under this UoP to contribute to SDG 7 and expect this UoP to be aligned with the renewable energy category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.	7 AFFORDABLE AND CLEAN ENERGY
Renewable energy – green hydrogen		
• Development, investment, acquisition, production, installation, operation, transmission and storage of existing or new projects related to green hydrogen and green ammonia from electrolysis powered by 100% renewable energy, including wind and solar, or with a life-cycle GHG emissions intensity lower than 3tCO_2e/tH_2, as well as the manufacture of dedicated components for green hydrogen and green ammonia.	• Hydrogen is a versatile energy carrier with multiple applications that are crucial to the clean energy transition. It can be used in industrial processes, vehicle propulsion, electricity generation and energy storage, among other uses. • Ammonia often serves as an efficient carrier for hydrogen due to its higher energy density and easier storage properties. SHS confirmed to us that its green ammonia is converted from hydrogen for the ease of transportation. • The environmental benefits of hydrogen and ammonia depend on the production process. The IEA reported that hydrogen currently is mostly produced from unabated natural gas and coal. • We consider investments towards hydrogen and ammonia produced through electrolysis using 100% renewable energy to be environmentally positive, as it is expected to generate low life-cycle GHG emissions. • It is also positive that SHS has established a criterion for green hydrogen and green ammonia investments to entail a life-cycle GHG emissions intensity at or below 3tCO_2e/tH_2, aligning with the threshold set by the EU taxonomy SCC for the manufacture of hydrogen. • The EU taxonomy also sets out requirements on calculation and verification. SHS informed us that it will calculate and	7 AFFORDABLE AND CLEAN ENERGY

	verify the life-cycle GHG emissions for green hydrogen projects using the same methodology as for hydropower projects. This approach leads to partial alignment with the EU taxonomy SCC, which was discussed previously in the hydropower commentary. • Currently, hydrogen-related activities are not included in the HKG taxonomy. • We consider investments under this UoP to contribute to SDG 7 and expect this UoP to be aligned with the renewable energy category of the ICMA Green Bond Principles and the green technologies category of the LMA, LSTA and APLMA Green Loan Principles.	
Renewable energy – ocean energy		
• Development, investment, acquisition, production, installation, operation, transmission and storage of existing or new projects related to ocean energy, including tidal and wave, as well as the manufacture of dedicated components for ocean energy.	• Ocean energy, including tidal and wave power, is also a renewable and highly predictable energy source due to the consistent nature of ocean currents and tides, offering a reliable alternative to fossil fuels. • However, tidal turbines and wave energy converters could affect marine life through noise pollution, physical barriers and changes in water flow and sediment transport. • As such, comprehensive environmental assessments and careful site selection are crucial to mitigate potential negative effects on marine life. • SHS did not specifically indicate how it intends to address these challenges, but we anticipate that they will be mitigated during the project evaluation and selection process, where environmental risk assessments and due diligence will be conducted. • The EU taxonomy recognises electricity generation from ocean energy technologies as an eligible activity under the climate change mitigation objective and it is derogated from complying with any SCC. • Ocean energy-related activities are not covered in the HKG taxonomy yet. • We consider investments under this UoP to contribute to SDG 7 and expect this UoP to be aligned with the renewable energy category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.	
Renewable energy – transmission and distribution		
• Development, investment, acquisition, production, installation, operation, transmission and storage of existing or new projects related to the transmission and distribution projects located on a system for which at least 67% of its added generation capacity over a rolling five-year period fall below the low-carbon power threshold of 100gCO_2e/kWh measured on a life-cycle basis that aims to connect renewable energy sources or reduce GHG emissions.	• Electricity transmission infrastructure is crucial for the clean energy transition. Large-scale, centralised renewable energy projects, such as wind and solar power plants, are often located in remote areas far from urban centres, where electricity demand is relatively low. • The construction of transmission lines plays a key role in the supply of low-emission electricity to high-demand areas, and in avoiding curtailment. • It is positive that SHS has set life-cycle GHG emissions eligibility criteria for transmission and distribution projects that align with the EU taxonomy SCC. • The EU taxonomy also sets out requirements on calculation and verification that follow the electricity generation criteria. • SHS informed us that it will calculate and verify the life-cycle GHG emissions for transmission and distribution projects using the same methodology as for hydropower projects. This approach leads to partial alignment with the EU taxonomy SCC, which was discussed previously in the hydropower commentary. • Currently, the construction and operation of electricity transmission and distribution are not included in the HKG taxonomy. • We consider investments under this UoP to contribute to SDG 7 and expect this UoP to be aligned with the renewable	

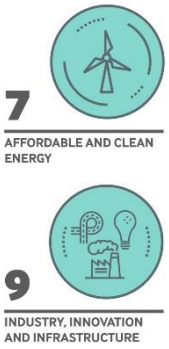
	energy category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.	
Clean transportation		
• Investment, acquisition, operation, maintenance and expenditure of projects related to zero-direct-emissions vehicles for passenger and freight transportation, including road and rail transportation that is fully electrified. • Investments, acquisition, operation and expenditure into construction, maintenance and renovation of dedicated hydrogen filling stations, charging infrastructure and battery swapping stations for electric vehicles. • For the avoidance of doubt, infrastructure dedicated to the transportation of fossil fuels will be excluded.	• This project category has a positive environmental impact, as it contributes to climate change mitigation and low-carbon transition, specifically in the transportation sector. • According to the IEA, the transportation sector accounts for about 25% of global carbon emissions, with over 75% of the emissions being from on-road vehicles. • The IEA also reported that the transportation sector in China contributed to 8.3% of total energy-related CO_2 emissions in 2022, the second-largest source. It is thus crucial for the road transport sector to greatly reduce carbon emissions to be consistent with global emissions reduction pathways that are in line with the Paris Agreement. • SHS's investments towards zero-direct-emissions rail transportation are eligible activities in the EU taxonomy with contribution to climate change mitigation under the activities of freight rail transport and passenger interurban rail transport. SHS's established eligibility criteria for this category align with the SCC. • Similarly, we expect other activities under this UoP category, including the investments towards zero-direct-emissions vehicles as well as investments towards dedicated hydrogen filling stations, charging infrastructure and battery swapping stations for electric vehicles, to aid in the transition to cleaner transportation and be aligned with the EU taxonomy SCC, as they support the electrification of transport, are dedicated to the operation of vehicles with zero tailpipe CO_2 emissions, and are not dedicated to the transport or storage of fossil fuels. • Investments related to fully electrified railways are included in the HKG taxonomy under the activity of construction and operation of public transportation system in urban and rural areas, while electric road vehicles with zero tailpipe emissions are included under the activity of construction and operation of personal mobility devices, cycle logistics. SHS meets the HKG taxonomy's criteria and thresholds. • The construction of supporting infrastructure, such as hydrogen filling stations and charging infrastructure, is currently not included in the HKG taxonomy. • We view investments related to clean transportation to contribute to SDGs 9 (industry, innovation and infrastructure and 11 (sustainable cities and communities) by decarbonising the transportation sector and thereby reducing air pollution. • We also expect this UoP category to be aligned with the clean transportation category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.	
Energy efficiency		
• Investment, manufacture and installation of energy-efficient systems, products and technology that reduce energy consumption or improve operational energy efficiency by at least 20% compared to the average of national energy consumption of an equivalent project or technology, including: – modernisation of lighting systems such as LED lighting, heating, ventilation and air conditioning (HVAC) infrastructure, and building management systems; and – investment in smart meters, sensors, and measurement tools for smart grids, as well as energy meters and energy management systems' components.	• This project category has a positive environmental impact, as it contributes to reducing energy consumption through the adoption of energy-efficient technologies in buildings and grid infrastructure. • According to the IEA, energy-efficiency improvements could deliver more than a third of the emissions reductions needed to meet global climate goals. In China, improving energy efficiency is particularly important given the country's high energy consumption and reliance on fossil fuels. • We recognise the overarching eligibility criteria to achieve at least 20% of energy consumption reduction or operational energy-efficiency improvement, which showcase a notable enhancement in energy efficiency.	

• For the avoidance of doubt, improvement activities that result in the lock in of fossil fuel technologies will be excluded.	• Lighting systems and HVAC systems typically represent major contributors to a building's energy profile. Modernisation and upgrades of the systems to improve efficiency can directly lead to a reduction in energy consumption. • Building management systems are centralised platforms that control a building's mechanical and electrical systems that typically integrate smart sensors, provide analytics and enable predictive maintenance. They can potentially optimise energy efficiency by automatically adjusting lighting and HVAC based on real-time occupancy and environmental data. • Additionally, this category covers investments in smart grids, energy meters and energy management systems. These technologies facilitate more efficient energy distribution, enable real-time consumption monitoring, and support data-driven decision making. Collectively, these technologies contribute to optimised energy utilisation and enhanced overall system efficiency. • Regarding the alignment with international taxonomies, installation of energy-efficiency equipment, including light sources and HVAC systems, is an eligible activity under the EU taxonomy. However, the SCC include compliance with certain EU regulations that we deem to be non-applicable to SHS, as the funded projects are unlikely to be located in the EU. • Installation and operation of equipment, including smart meters, sensors and measurement tools, where the main objective is an increase in the generation or use of renewable electricity generation is also an eligible activity under the EU taxonomy. SHS has confirmed to us that the equipment will only be installed on transmission and distribution systems that comply with the eligibility criteria set out in the renewable energy category. Therefore, we expect SHS's smart grid components to align with the EU taxonomy SCC. • Lastly, installation of instruments and devices for measuring, regulation and controlling energy performance of buildings is also EU taxonomy eligible. Specifically, the installation of building energy management systems and smart meters automatically aligns with the SCC. • These eligible projects under this category are currently not covered in the HKG taxonomy. • The framework explicitly excludes improvement activities that result in the lock-in of fossil fuel technologies. This ensures that the energy-efficiency improvements contribute to long-term sustainability goals rather than prolonging the use of carbon-intensive technologies. • This UoP category supports SDG 7, particularly target 7.3, which aims to double the global rate of improvement in energy efficiency by 2030. • This UoP is category in line with the energy efficiency project category of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.

Green buildings

- Projects related to investment, acquisition, development, construction and refurbishment of new or existing commercial or residential buildings that have received, or expect to receive based on their design, construction and operational plans, certification according to third-party verified green building standards, such as:
  - US LEED Gold or above;
  - BEAM Plus Gold or above;
  - China's Green Building Evaluation Standard 3-star;
  - BREEAM Excellent or above;
  - EDGE Certified or above; or
  - BCA Green Mark Gold or above.
- In addition to attaining the certifications above, SHS will also comply with the technical criteria and thresholds set out in the HKG taxonomy for the activities of renovation of existing buildings and construction of new buildings.
- Expenditures related to the development, investment, acquisition, construction, installation, operation, maintenance and refurbishment of eco-efficient data centres that meet the average annual power usage effectiveness (PUE) thresholds.
- The PUE threshold used for eligibility will depend on the different scenarios and climate conditions (ie temperature and humidity):
  - for expenditures related to construction of new data centres with a PUE of 1.25 or less in cool climates, or a PUE of 1.30 or less in warm climates, at 100% load for data centres;
  - for expenditures related to major refurbishments of existing data centres that would lead to data centres with a PUE of 1.40 or less at 100% load for data centres; or
  - for acquisitions of data centres with a PUE of 1.30 or less in cool climates, or a PUE of 1.40 or less in warm climates, at 100% load for data centres.
- Cool climate regions are regions that are at or below cooling degree days from temperature corrected by humidity, measurement of 1,500°C days based on the IEA Weather, Climate and Energy Tracker. Cool climate regions include, but are not limited to, northern China (including Inner Mongolia, Beijing and Hebei), Canada, Japan and South Korea.
- Warm climate regions are regions that are at or above cooling degree days from temperature corrected by humidity, measurement of 1,501°C days based on the IEA Weather, Climate and Energy Tracker. Warm climate regions include, but are not limited to, southern China (including Greater Bay Area and Hainan), ASEAN and India.

- There are two sub-categories under this eligible green project category: commercial or residential buildings, and data centres.
- We deem the component concerning commercial or residential buildings as having a positive environmental impact due to their crucial role in reducing the environmental footprint of the built environment and promoting sustainable urban development.
- The building sector significantly contributes to global energy consumption and GHG emissions. According to the IEA, building operations and construction emissions account for more than one-third of global energy-related emissions, especially when including the manufacturing and processing of materials such as cement, steel and aluminium for buildings.
- The eligibility criteria for this category are based on well-established green building certification systems that are internationally, nationally or regionally recognised.
- These certifications require buildings to meet various environmental criteria that cover aspects such as energy performance, water use, waste reduction and indoor environmental quality.
- We believe the listed minimum standards to be impactful and expect the certified projects to exhibit better environmental performance compared to uncertified buildings.
- Certain international green taxonomies focus on energy performance indicators rather than green building certification schemes. For example, the EU taxonomy acknowledges the construction, renovation, acquisition and ownership of buildings as activities that contribute to climate change mitigation through science-based energy performance thresholds.
- This taxonomy mandates that buildings constructed from 2021 onwards must have 10% less primary energy demand (PED) than nearly zero-energy buildings. Buildings built before 2021 should be within the top 15% of the national or regional building stock in terms of operational PED, and renovated buildings must achieve a PED reduction of at least 30% or comply with applicable major renovation requirements.
- SHS does not explicitly intend to align with the EU taxonomy. However, it commits to aligning with the criteria and thresholds for constructing new buildings and renovating existing ones as set out in the HKG taxonomy, which mainly mirrors the EU taxonomy SCC but offers more compliance alternatives and adapts to the local context.
- We find the HKG taxonomy's criteria and thresholds for new and existing buildings to be robust, demonstrating significant improvements in energy efficiency. Therefore, we positively view the commitment to align with the HKG taxonomy.
- However, since the HKG taxonomy criteria and thresholds are more broadly defined and not fully identical to the EU taxonomy, we cannot confirm alignment with the EU taxonomy.
- We also view the sub-category of energy-efficient data centres positively for their crucial role in reducing energy consumption and the environmental footprint of the rapidly growing digital infrastructure sector.
- Data centres are substantial energy consumers, contributing to global electricity demand and associated carbon emissions. In 2022, data centres consumed around 0.9% of total social electricity consumption in China, with projections indicating an increase to between 1.5% and 2% by end-2025,



	according to the China Academy of Information and Communications Technology. • Within SHS's framework, the key eligibility criterion for data centres is PUE, one of the most commonly used metrics that measures how efficiently a data centre uses energy. PUE is calculated by dividing the total energy consumed by the facility by the energy used specifically for computing equipment, with a lower ratio indicating better efficiency. • We consider the PUE thresholds set by SHS to be impactful and indicative of advanced energy-efficiency levels, well below the global average of 1.56 reported in the Uptime Institute Global Data Centre Survey 2024. • In China, the significance of green data centres has been underscored in recent national policies. • According to the "Information and Communication Industry Green and Low-Carbon Development Action Plan (2022–2025)" issued jointly by seven ministries, including the Ministry of Industry and Information Technology, the PUE of newly built large and ultra-large data centres in China should be reduced to below 1.3 by 2025. • For new data centre construction, the framework aligns closely with this criterion. • We also recognise the differentiation between PUE benchmarks in cool and warm climates, considering the substantial impact of external temperature and humidity on data centre cooling requirements and overall energy efficiency. This approach allows for a fairer assessment of data centres across diverse geographical locations. • SHS categorises cool climates and warm climates using cooling degree days, with a threshold of 1,500°C days. • SHS calculates cooling degree days by subtracting a base temperature of 18°C from the daily mean temperature, summing positive differences over a year, and incorporating humidity corrections, based on the IEA Weather, Climate and Energy Tracker. We view the use of 1,500°C days as a reasonable threshold. • Data processing, hosting and related activities are EU taxonomy-eligible activities. The SCC of these activities include the implementation of all expected practices listed in the European Code of Conduct on Data Centre Energy Efficiency and require the use of refrigerants that do exceed a global warming potential of 675. • SHS confirmed to us that its data centres are unlikely to be located in the EU; therefore, the European Code of Conduct on Data Centre Energy Efficiency may not be always relevant and the UoP will not align with the SCC. However, we still deem the projects to demonstrate a high level of energy efficiency based on the committed PUE levels. • Currently, data processing, hosting and related activities are not covered by the HKG taxonomy. • This UoP category advances several SDGs, notably SDGs 7 and 9, by enhancing resource use efficiency in buildings, promoting highly energy-efficient data centres, and contributing to reducing energy consumption. • Overall, this UoP category is in line with the green buildings and energy efficiency project categories of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.
Source: SHS green finance framework (March 2025)	Source: Sustainable Fitch, engagement with SHS

Use of Proceeds – Other Information	Alignment: Good
Company Material	**Sustainable Fitch's View**
• SHS and its subsidiaries will allocate an amount at least equivalent to the net proceeds of the green financing instruments issued under this framework to finance and/or refinance, in whole or in part, eligible green projects. The eligible green projects may include assets, capex, opex, R&D expenses and/or equity investments into pure-play entities. • These include equity participations in entities where at least 90% of the revenue can be attributed to one or more of the eligible green project categories described in the UoP section of this framework (pure-play companies). Investment in pure-play companies, where the equity investment is not traceable to underlying projects in the use of the proceeds, will be limited to 5% of the proceeds allocation. • A maximum three-year lookback period would apply for refinanced projects and SHS expects each issuance under this framework to be fully allocated within two years from the date of issuance. • However, assets such as long-term green infrastructure construction projects may require longer allocation periods. SHS will, where possible, disclose to stakeholders the expected share of financing versus refinancing for any green financing instrument under this framework. • For the avoidance of doubt, financing related to the following activities is excluded from the financing by SHS's green financing instruments: – projects related to development, operation and maintenance of new or existing fossil fuels-based electricity generation facilities, including but not limited to, coal, oil or natural gas; – projects related to the nuclear energy production or trade of nuclear fuel; – projects related to trade and production of conflict minerals; – projects related to the production of palm oil; – projects related to the production or trade of alcoholic beverages; – projects related to the production or trade of tobacco products; – projects related to the production or trade of weapons and ammunition; and – gambling-related activities.	• The framework confirms that funds can be allocated either to new projects or refinancing. There is no information on the expected share of proceeds allocated to new projects. We consider financing new projects more positively due to higher additionality in terms of environmental impact. • However, as SHS is a state-owned enterprise tasked with supporting national and provincial strategic developments, the eligible green projects are primarily long-term infrastructure. We expect that even refinanced assets will have a significant remaining lifespan to continue providing environmental benefits. • The maximum lookback period of three years for refinanced projects is in line with standard market practice. Best practice would be to limit the lookback period to one year, as shorter lookback periods can be linked to stronger additionality from an environmental impact perspective. • It is positive from an ESG perspective that SHS specified clear exclusion criteria, as this provides a good level of assurance that funds are earmarked for eligible projects and will not be allocated to company activities that could have negative environmental or social impact. • The framework also includes equity investments in companies that derive 90% or more of their revenue from environmentally sustainable activities, ie one or more of the eligible green project categories described in UoP section of this framework. These are referred to as pure-play companies. • SHS confirmed to us that it will focus primarily on direct investments and subscriptions for newly issued shares rather than secondary market purchases. This investment enables SHS to drive meaningful environmental impacts by directing capital to companies and projects with environmental benefits. • The framework also sets a limitation that equity investments not directly traceable to specific projects will be capped at 5% of the proceeds allocation. This ensures the majority of proceeds are allocated to identifiable green projects. • In addition, investments are made with the intent to acquire significant and majority stakes in companies, typically resulting in enhanced governance rights such as board seats and key management positions. This approach allows SHS to meaningfully influence the strategic direction and sustainability practices of investee companies. • Another of its key focus areas are investments that can potentially generate green synergies among portfolio companies. For example, the partnerships between renewable energy companies and data centre operators. • SHS also clarified to us that it will exclude companies if the remaining 10% of their revenue is derived from activities on the framework's exclusion list. This approach mitigates the risk of investing in companies that could potentially harm the environment and society. • We view the additional commitments relating to the UoP to be aligned with the requirements of the ICMA Green Bond Principles and LMA, LSTA and APLMA Green Loan Principles.
Source: SHS green finance framework (March 2025)	Source: Sustainable Fitch, engagement with SHS

Evaluation and Selection	Alignment: Excellent
Company Material	**Sustainable Fitch's View**
• The project evaluation and selection process will ensure that the proceeds of any SHS green financing instrument are allocated to finance or refinance eligible green projects that meet the criteria and objectives set out in the UoP section. • SHS's green finance working group (GFWG) will be responsible for governing and implementing the initiatives set out in the framework.	• We consider SHS's project evaluation and selection process to be clearly defined in the framework. • It is positive from an ESG perspective that a dedicated working group, ie the GFWG, is set up to govern and implement the initiatives set out in the framework. • According to the framework, the GFWG is formed with representation mainly from members with corporate governance and finance expertise.

Evaluation and Selection	Alignment: Excellent
Company Material	**Sustainable Fitch's View**
• The GFWG comprises senior representatives from the secretary to the board, the investment department and the finance department. The GFWG may be supplemented from time to time, or expanded, by the inclusion of representatives from other relevant teams. • The GFWG will: – meet at least two times each year, endeavoured to be distributed evenly throughout the year; – ratify eligible green projects, which are initially proposed by the individual business units and project teams; – ensure that projects comply with SHS's internal environmental and risk management policies as well as applicable local governmental regulations; – undertake regular monitoring of the asset pool to ensure the eligibility of green projects with the criteria set out in the UoP section, while replacing any ineligible green projects with eligible new green projects; – facilitate regular reporting on any green issuance in alignment with the reporting commitments; – manage any future updates to the framework; and – ensure that the approval of eligible green projects will follow SHS's existing project approval processes. • The business units and project teams are responsible for evaluating and selecting projects by ensuring they do not fall under any controversies and exclusion list, and performing a comprehensive risk assessment and due diligence, including environmental and social risks and due diligence, based on the local environmental and social related laws and regulations as well as SHS's internal ESG risk management practices.	• SHS confirmed to us that the GFWG will also include members with sustainability skills and has representation from different functions to provide a mix of expertise and perspectives to ensure that balanced decisions are made. We view this positively, as it demonstrates a comprehensive approach to governance and decision making. • The potential green projects are proposed by the individual business units and project teams, and ratified by the GFWG. This separation of duties enhances objectivity in project selection, reduces potential conflicts of interest and ensures a more rigorous evaluation process. • We view positively that comprehensive environmental and social risk assessment and due diligence is integrated in the process to ensure the potential green projects meet local environmental and social related laws and regulations as well as the group's internal ESG risk management practices. This ensures the selected projects not only contribute to environmental goals but also adhere to responsible business practices and mitigate potential negative impacts. • As for equity investments in pure-play companies, the GFWG will rely on annual reports from the investee companies to verify that at least 90% of revenue is derived from eligible green project categories. Additionally, since the equity investment will always lead to a majority and significant stake in the investee company, such as seats on the board of directors and key management personnel, SHS will have additional information to confirm whether the revenue meets the threshold. • We view the commitments relating to the process for evaluation and selection to be aligned with the requirements of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.
Source: SHS green finance framework (March 2025)	Source: Sustainable Fitch, engagement with SHS

Management of Proceeds	Alignment: Good
Company Material	**Sustainable Fitch's View**
• The proceeds of each of SHS's green financing instrument will be deposited in its general funding accounts and earmarked for allocation towards the eligible green projects. SHS will maintain a green finance register to track the UoP for the green financing instrument. • The green finance register will contain the following information: – green financing instrument details such as ISIN (if applicable), pricing date and maturity date; and – allocation of proceeds, including the eligible green projects list (including for each eligible green project, the eligible green project category, project description, project location, amount disbursed and settled currency) and the amount of unallocated proceeds. • Any proceeds temporarily unallocated will be invested according to the SHS's standard liquidity policy in cash or cash equivalents. Unallocated proceeds will also be managed in line with the exclusion criteria listed in the framework. • During the life of the green financing instruments issued under this framework, if the designated projects cease to fulfil the eligibility criteria, the net proceeds will be reallocated to replacement projects that comply with the eligibility criteria as soon as reasonably practicable.	• We consider the practice of depositing proceeds into general funding accounts, with virtual earmarking for green projects, to be in line with standard market practice. • However, market best practice for managing proceeds involves segregating the funds from normal treasury accounts through an SPV or ring-fenced sub-account to prevent the commingling of funds with other financing instruments or other sources of funding within the general account. • The unallocated proceeds are to be temporarily invested in line with SHS's standard liquidity policy in cash or cash equivalents, which also aligns with standard market practice. • We view positively the commitment to manage unallocated proceeds in accordance with the exclusion criteria outlined in the framework. We consider using the temporary investment within a restricted pool of assets, specifically those that have green or social investment characteristics, as market best practice. • We positively view the group's commitment to monitor the designated projects during the lifetime of the green financing instruments and reallocate proceeds from projects that no longer meet the eligibility criteria to other eligible projects. This commitment gives assurance to investors that compliance with the applicable eligibility criteria for the UoP will be maintained throughout the lifespan of the green financing instruments. • We view the commitments relating to the management of proceeds to be aligned with the requirements of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.
Source: SHS green finance framework (March 2025)	Source: Sustainable Fitch

Reporting and Transparency	Alignment: Excellent
Company Material	**Sustainable Fitch's View**
• On an annual basis, SHS will publish an allocation report and an impact report on its eligible green projects. This reporting will be updated annually until full allocation of the net proceeds of any green financing instrument issued, or until the green financing instrument is no longer outstanding. Furthermore, additional reports are intended to be produced on a timely basis in case of material developments. • In the process of considering investments for allocation under the green financing instruments, SHS will discount the portion of the eligible green projects that have been financed and/or refinanced by one or several other issuers under their respective green or sustainable finance frameworks to avoid the double-counting issue. • Allocation reporting will include: – list of eligible green projects; – amount of proceeds allocated to each eligible green project category; – breakdown of the amount of proceeds allocated to refinancing versus new financing; – when possible, descriptions of the eligible green projects financed, such as project locations and amount allocated; – selected examples of projects financed; and – amount of unallocated proceeds. • As for impact reporting, SHS will provide reporting on the environmental benefits of the eligible green projects. Subject to data availability and confidentiality, impact reporting may cover the following impact reporting metrics listed below: – capacity of renewable energy plants constructed or rehabilitated in MW; – annual renewable energy generation in MWh or GWh for electricity, and in GJ or TJ for other energy; – annual GHG emissions reduced or avoided in tonnes of CO_2 equivalent, where possible; – number of electric vehicles acquired; – number of charging stations installed; – length of tracks built (km); – number of hydrogen filling stations installed; – expected energy saved (MWh); – percentage annual energy-efficiency gain relative to an established baseline; – level of certification by property; – energy-efficiency gains versus baseline (MWh or %); and – design or operating PUE. • Where available, SHS will take reference from the relevant indicators suggested in the ICMA Handbook – Harmonised Framework for Impact Reporting. In addition, SHS will disclose calculation methodologies and key assumptions. • SHS intends to engage a third-party reviewer to provide an annual assessment on the alignment of the allocation of funds with the framework's criteria.	• We deem that the commitment to annual reporting on proceeds allocation and impact indicators until full allocation, or until the green financing instrument is no longer outstanding, with additional commitment to report in the event of material developments, to align with market best practices. • SHS states that it will report on proceeds allocation and impact indicators for each eligible project category. We consider reporting both allocation and impact indicators at the project level to provide the greatest level of transparency to investors. • Following our engagement with SHS, we have been made aware that allocation and impact reporting will be available at the green financing instrument level, with each green financing instrument having its own reporting. • We consider this to be in line with market best practices, as it provides more transparent information to investors, given that each green financing instrument may have varying outcomes in terms of proceeds allocation and impact indicators. • We consider the sample impact indicators to be specific, relevant and measurable, and to provide quantifiable information about the positive impacts of the eligible projects. • We consider making references to the ICMA Handbook – Harmonised Framework for Impact Reporting to contribute positively to the quality of reporting; however, this is currently only an intention-based commitment within the framework. • We consider SHS's commitment to disclosing the calculation methodologies and key assumptions to be aligned with market best practice. This information enhances data reliability and allows for an assessment of the data quality. • SHS has committed to obtaining post-issuance independent verification for its allocation reporting. We view this as favourable in enhancing the credibility of the reporting. Best practice would be to obtain verification for both allocation and impact reporting. • We view the commitments related to reporting to be aligned with the requirements of the ICMA Green Bond Principles and the LMA, LSTA and APLMA Green Loan Principles.
Source: SHS green finance framework (March 2025)	Source: Sustainable Fitch, engagement with SHS

Relevant UN Sustainable Development Goals

- **7.2:** By 2030, increase substantially the share of renewable energy in the global energy mix.
- **7.3:** By 2030, double the global rate of improvement in energy efficiency.

- **9.1:** Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
- **9.4:** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

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

Source: Sustainable Fitch, UN

Alignment with the Hong Kong Taxonomy for Sustainable Finance

The HKG taxonomy has one environmental objective: climate change mitigation (HKEO1). It includes 12 eligible economic activities within four sectors: electricity, gas, steam and air conditioning supply; transportation and storage; water supply, sewerage, waste management and remediation activities; and construction.

Sustainable Fitch evaluates whether an activity or project category is taxonomy eligible and if it meets the activity-level SCC for HKEO1. We deem a sustainable finance framework or transaction to be aligned with the HKG taxonomy based on eligible activities only, and do not consider social or green activities not yet included in the taxonomy in this assessment.

Use of Proceeds	**Renewable energy – solar and wind (excluding electricity transmission, manufacturing of dedicated components and storage of electricity)**
Contribution to Environmental Objectives	**Climate change mitigation** Yes.
Compliance with SCC to determine whether economic activity is considered sustainable	Yes. Construction or operation of electricity generation facilities that produce electricity using solar PV technology, concentrated solar power technology and wind power are eligible activities. For electricity generation using solar PV technology, the main criteria include minimum photoelectric conversion efficiency for different types for solar cells and decay rate modules, as well as maximum decay rates. SHS confirmed to us that it will comply with the requirements. There are no criteria that need to be complied with for electricity generation using concentrated solar power technology and electricity generation using wind power.

Use of Proceeds	**Renewable energy – solar and wind (electricity transmission, manufacturing of dedicated components and storage of electricity)**
Contribution to Environmental Objectives	**Climate change mitigation** n.a.
Compliance with SCC to determine whether economic activity is considered sustainable	n.a. Transmission of electricity generated from solar and wind energy is not yet included in the taxonomy Manufacture of renewable energy technologies, including solar and wind, is not yet included in the taxonomy. Storage of electricity generated from solar and wind energy is not yet included in the taxonomy.

Use of Proceeds	**Renewable energy – hydropower, geothermal energy, ocean energy, hydrogen, and grid-level transmission and distribution**
Contribution to Environmental Objectives	**Climate change mitigation** n.a.
Compliance with SCC to determine whether economic activity is considered sustainable	n.a. Construction or operation of hydropower, geothermal energy and ocean energy generation facilities, as well as the transmission and storage of electricity from these sources, are not yet included in the taxonomy. Manufacture of renewable energy technologies, including hydropower, geothermal energy and ocean energy, is not yet included in the taxonomy. Manufacture of hydrogen, manufacture of anhydrous ammonia, storage of hydrogen, and transmission and distribution networks for renewable and low-carbon gases are not yet included in the taxonomy. Grid-level transmission and distribution of electricity and manufacture of high-, medium- and low-voltage electrical equipment for electrical transmission and distribution are not yet included in the taxonomy.

Use of Proceeds	**Clean transportation – public transportation system and zero-direct emission vehicles**
Contribution to Environmental Objectives	**Climate change mitigation** Yes.
Compliance with SCC to determine whether economic activity is considered sustainable	Yes. Investment related to fully electrified railways is an eligible activity under the category of construction and operation of public transportation system in urban and rural areas. SHS's activity meets the main criterion of trains and passenger coaches having zero direct (tailpipe) CO_2 emissions.

Alignment with the Hong Kong Taxonomy for Sustainable Finance

	Investment related to fully electrified road vehicles is also an eligible activity under the category of construction and operation of personal mobility devices and cycle logistics, which covers the selling, purchasing, financing, leasing, renting and operation of private electric or hydrogen vehicles. The activity meets the first main criterion of having the propulsion of the devices come from a zero-emissions motor. We confirmed with the Hong Kong Monetary Authority that the second main criterion about being able to operate on the same public infrastructure as bikes or pedestrians is not applicable to this activity.

Use of Proceeds	**Clean transportation – freight rail transport, electric vehicle charging stations, battery swapping stations and hydrogen filling stations**
Contribution to Environmental Objectives	**Climate change mitigation** n.a.
Compliance with SCC to determine whether economic activity is considered sustainable	n.a. Construction and operation of freight rail transport, electric vehicle charging stations, battery swapping stations and hydrogen filling stations are not yet included in the taxonomy.

Use of Proceeds	**Energy efficiency**
Contribution to Environmental Objectives	**Climate change mitigation** n.a.
Compliance with SCC to determine whether economic activity is considered sustainable	n.a. Installation, maintenance and repair of energy-efficiency equipment and instruments and devices for measuring, regulation and controlling energy performance of buildings are not yet included in the taxonomy.

Use of Proceeds	**Green buildings – new and existing buildings**
Contribution to Environmental Objectives	**Climate change mitigation** Yes.
Compliance with SCC to determine whether economic activity is considered sustainable	Yes. Construction of new buildings and renovation of existing buildings are both eligible activities. Regarding new buildings, key thresholds include achieving BEAM Plus Gold or above certification, with the energy use component meeting at least 10 credits under EU2 (Reduction of CO_2 Emissions) and a minimum 70% score in the energy use category. Projects certified under BEAM Plus 1.2 must achieve a 30% energy saving against the BEC 2018 baseline, while those under BEAM Plus 2.0 require a 20% saving against the BEC 2021 baseline. Alternatively, buildings can be certified at least Extra Low in energy utilisation index or achieve a 25% reduction in energy performance certification under the Zero-Carbon-Ready Building Certification Scheme. For projects outside Hong Kong, in the EU, PED must be at least 10% lower than nearly zero-energy building requirements, and buildings over 5,000sqm must undergo airtightness and thermal integrity testing. In mainland China, projects should be rated to 3-star of the China's Green Building Evaluation Standard. For markets not covered under the Common Ground Taxonomy developed by the International Platform on Sustainable Finance, criteria include LEED Gold certification with specific energy performance improvements, NABERS certification of at least five stars, or IFC EDGE Advanced certification, with allowances for any level in least developed countries. For the renovation of existing commercial buildings, key thresholds include achieving a reduction of PED, energy consumption, or direct GHG emissions by at least 30% compared to the building's historic average, or utilising the Hong Kong Green Building Council's Zero-Carbon-Ready Building Certification Scheme to achieve at least Extra Low or Level 2 improvement, which equates to a 25% reduction. For existing residential buildings, renovations must lead to a reduction of PED, energy consumption or direct GHG emissions by at least 30% against the building's historic average, supported by measured and verified data. SHS has committed in the framework that the construction of new buildings and renovation of existing buildings will comply with the above criteria and threshold.

Use of Proceeds	Green buildings – data centres
Contribution to Environmental Objectives	Climate change mitigation
	n.a.
Compliance with SCC to determine whether economic activity is considered sustainable	n.a. Data processing, hosting and related activities are not yet included in the taxonomy.

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

Appendix A: Principles and Guidelines

Type of Instrument: Green

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

Independent External Review Provider	
Second-party opinion	Yes
Verification	Yes
Certification	No
Scoring/Rating	No
Other	n.a.

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

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

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

3) Management of Proceeds	
Tracking of Proceeds	
Sustainability instrument proceeds segregated or tracked by the issuer in an appropriate manner	Yes
Disclosure of intended types of temporary investment instruments for unallocated proceeds	Yes
Other	n.a.

Type of Instrument: Green

Additional Disclosure	
Allocations to future investments only	No
Allocations to both existing and future investments	Yes
Allocation to individual disbursements	No
Allocation to a portfolio of disbursements	Yes
Disclosure of portfolio balance of unallocated proceeds	Yes
Other	n.a.

4) Reporting

UoP Reporting	
Project-by-project	No
On a project portfolio basis	Yes
Linkage to individual instrument(s)	Yes
Other	n.a.

UoP Reporting/Information Reported	
Allocated amounts	Yes
Sustainability instrument-financed share of total investment	No
Other	n.a.

UoP Reporting/Frequency	
Annual	Yes
Semi-annual	No
Other	n.a.

Impact Reporting	
Project-by-project	No
On a project portfolio basis	Yes
Linkage to individual instrument(s)	Yes
Other	n.a.

Impact Reporting/Information Reported (exp. ex-post)	
GHG emissions/savings	Yes
Energy savings	Yes
Decrease in water use	No
Other ESG indicators	Capacity of renewable energy plants constructed or rehabilitated, annual renewable energy generation, number of electric vehicles acquired, number of charging stations installed, length of tracks built, number of hydrogen filling stations installed, percentage annual energy-efficiency gains relative to an established baseline, level of certification by property, energy-efficiency gains versus baseline, and design or operating PUE

Impact Reporting/Frequency	
Annual	Yes

Type of Instrument: Green	
Semi-annual	No
Other	n.a.

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

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

Appendix B: Definitions

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

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

Appendix C: Second-Party Opinion Methodology

Second-Party Opinion

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

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

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

Analytical Process

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

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

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

Scale and Definitions

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

Source: Sustainable Fitch

SOLICITATION STATUS

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