HONG KONG MONETARY AUTHORITY
香港金融管理局







Hong Kong Taxonomy for Sustainable Finance (Phase 2A)

January 2026





Contents

Chapter I: Introduction 4

Chapter II: Climate Change Mitigation 10

A. Energy 17

B. Transportation 26

C. Construction 39

D. Waste 48

E. Manufacturing 52

F. Information and Communications Technology (ICT) 66

Chapter III: Climate Change Adaptation 72

Chapter IV: Looking Forward 78

Appendix: Associated ISIC Codes 80

Chapter I:

Introduction



Background

The Hong Kong Monetary Authority (HKMA) developed the Hong Kong Taxonomy for Sustainable Finance (thereafter referred to as the "Hong Kong Taxonomy" or "the Taxonomy") to provide a systematic framework for defining and classifying environmentally sustainable economic activities. Its primary goal is to scale up green and sustainable finance flows, thereby addressing the growing need for targeted financial support both within the region and globally to drive the transition to a low-carbon economy.

Since its launch, the Taxonomy has evolved beyond its initial focus on climate change mitigation to also include climate change adaptation under the current Phase 2A. Looking ahead, the Taxonomy will continue to evolve and expand, with a view to incorporating a broader range of sectors, activities, transition elements and environmental objectives to support a more holistic and comprehensive sustainability agenda.

Hong Kong's Commitment to Carbon Neutrality

Asia, responsible for over half of global emissions, is both a critical battleground in the fight against climate change and one of the regions most vulnerable to its impacts. It is estimated that Asia will require US$66 trillion of climate investment during 2020-2050.[1] China alone is projected to need US$22 trillion for the period spanning 2020 to 2060.[2]

In Hong Kong, the Government has taken decisive actions against climate change. The Climate Action Plan 2050 published in 2021 sets out the target to achieve carbon neutrality before 2050. It outlines four key decarbonisation strategies, namely:

1. **Net-zero electricity generation**
2. **Energy saving and green buildings**
3. **Green transport**
4. **Waste reduction**

To support these initiatives, the Climate Action Plan 2050 stated that about HK$240 billion would be allocated in the following 15 to 20 years to take forward the measures on climate change mitigation and adaptation, covering renewable energy, energy saving and green buildings, green transport, waste management, etc. In alignment with the Paris Agreement, the Government has also pledged to review the Climate Action Plan every five years to ensure it remains relevant and effective in addressing evolving needs and challenges.[3]

1 https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2025/RM01-2025.pdf

2 https://www3.weforum.org/docs/WEF_Finance_the_Transition_NewZero_Future_China_2022.pdf

3 https://www.info.gov.hk/gia/general/202110/08/P2021100800588.htm

The Role of Finance in Driving Climate Action

The financial sector plays a pivotal role in advancing global climate objectives and facilitating the transition to a low-carbon economy. A robust taxonomy, or classification framework, is essential for this effort. It provides clear guidelines for identifying green and sustainable activities, enabling the scaling up of capital flows towards credible, environmentally responsible projects while steering investments away from high-emitting industries.

As a leading international financial centre and premier green hub, Hong Kong is uniquely positioned to channel and scale up the flow of capital towards green and sustainable assets and investments. To this end, the HKMA is advancing the development of the Hong Kong Taxonomy for Sustainable Finance. This home-grown classification system is a cornerstone of Hong Kong's efforts to establish itself as a global leader in green and sustainable finance.

About the Hong Kong Taxonomy

The development of the Hong Kong Taxonomy commenced in 2022. Its purpose is to provide a common standard and to accelerate the allocation of capital towards activities that enable the transition to a low-carbon economy. By aligning with international frameworks and catering for local contexts, the Taxonomy is designed to facilitate green and sustainable finance flows not only in Hong Kong, but also in the Chinese Mainland, the wider Asia region, and beyond. Furthermore, its scope extends beyond Hong Kong-specific activities, enabling an inclusive and impactful approach to driving sustainable finance on a local, regional, and global level.

In practice, the Taxonomy seeks to:

- offer guidance for market participants to make more informed investment decisions regarding green and sustainable finance products;
- scale up the flow of capital towards robust green and sustainable assets, projects, and investments;
- provide market participants with greater confidence in sustainability claims, addressing greenwashing concerns; and
- enhance comparability across portfolios and investments.

Publication of Phase 1 Taxonomy

In May 2024, Phase 1 of the Hong Kong Taxonomy was published, marking a significant milestone in integrating sustainability into Hong Kong's financial ecosystem. Phase 1 of the Taxonomy focused on identifying and defining 12 green economic activities across four key sectors:

Energy	Transportation	Waste	Construction

These sectors were strategically prioritised having regard to their substantial contributions to Hong Kong's carbon emissions and their pivotal roles in advancing the city's decarbonisation goals, as outlined in the Government's Climate Action Plan 2050.

Phase 1 operationalised the Common Ground Taxonomy (CGT) developed by the International Platform for Sustainable Finance (IPSF), ensuring compatibility with the taxonomies of the Chinese Mainland and the European Union (EU). This interoperability strengthens Hong Kong's position as a bridge between global and regional sustainable finance markets.

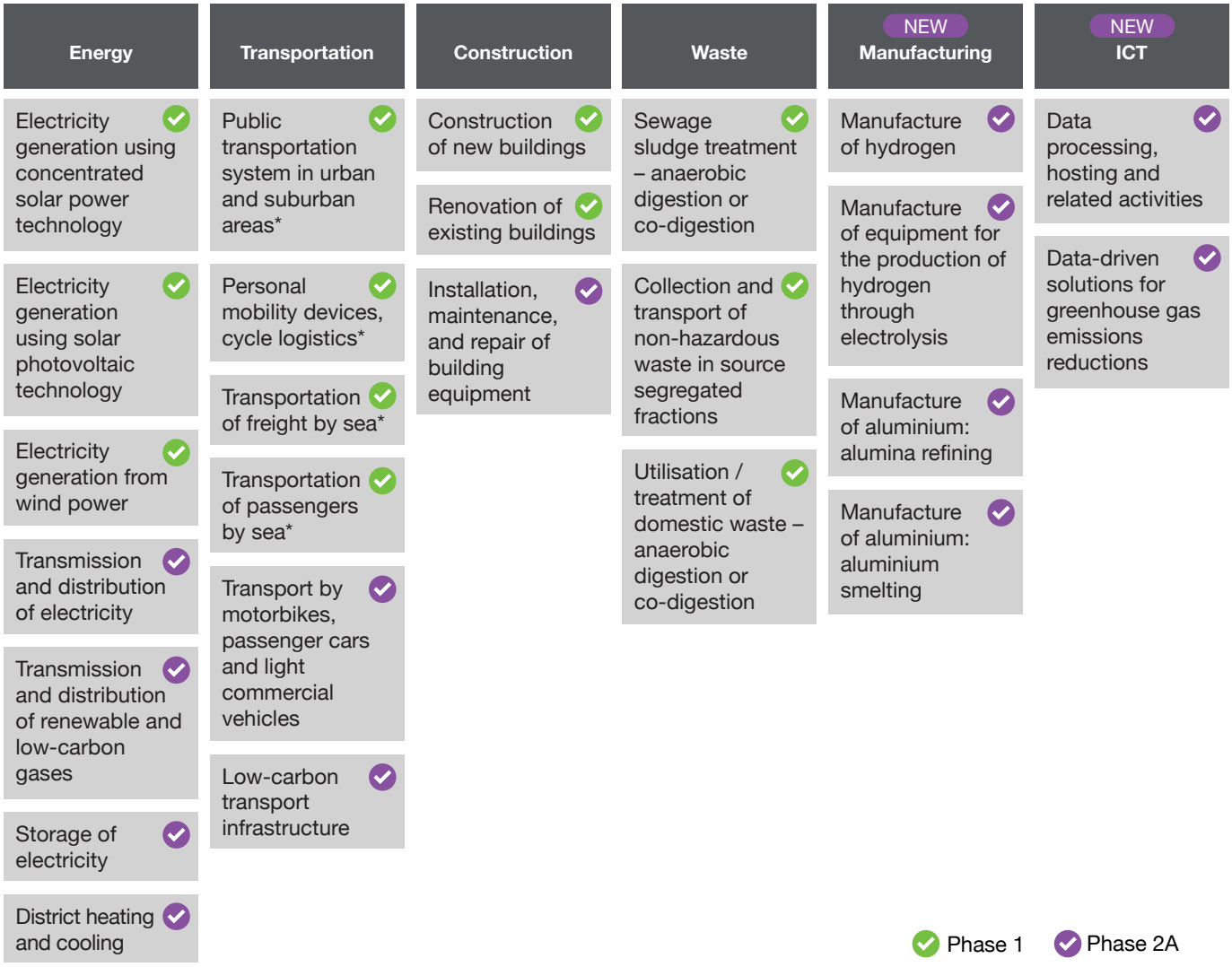
The Hong Kong Taxonomy has emerged as a valuable market-enabling tool since its launch. Banks, corporates, and the public sector have utilised it to support product development, inform investment decisions, and align their sustainable finance frameworks with Taxonomy criteria. This underscores the critical role the Taxonomy plays in guiding investments, fostering transparency, and accelerating the transition to a low-carbon economy.

Phase 2 Taxonomy Development

Building on the foundation of Phase 1, Phase 2 of the Taxonomy has expanded in scope. With a view to driving the transition in Hong Kong, the Chinese Mainland, Asia and beyond, Phase 2 not only introduces new green activities, but also incorporates transition elements, including new categories for transition activities and transition measures. To ensure alignment with evolving market needs, policy priorities and technological advancements, Phase 2 will be rolled out in stages, beginning with Phase 2A and followed by subsequent phases.

Specifically, under Phase 2A, two new sectors, namely Manufacturing, and Information Communications and Technology (ICT), have been introduced. As both are carbon intensive sectors, their development and transition pathways will greatly impact the decarbonisation of the economy. Additionally, Phase 2A broadened the scope of the Energy and Transportation sectors by incorporating new green and transition activities, as well as defining transition criteria for green activities identified under Phase 1.

Figure 1: Expansion of taxonomy scope from Phase 1 to Phase 2A



*Activities published in Phase 1 and updated in Phase 2A

The prioritisation of sectors and activities in Phase 2A is the result of a rigorous stakeholder consultation process involving financial institutions, corporates, investors, government agencies, and other stakeholders. With the support from Climate Bonds Initiative (Climate Bonds), this process carefully considered a basket of factors, including scientific pathways, sectoral emissions profiles, contributions to local and regional decarbonisation goals, technology advancements, and corresponding financing needs.

Phase 2A maintains a level of interoperability with international standards such as the CGT while extending beyond it by incorporating new sectors, transition elements, and locally tailored criteria that reflect Hong Kong's unique economic structure and sustainability priorities. The Taxonomy will continue to explore alignment opportunities with the CGT, the Multi-Jurisdiction Common Ground Taxonomy (M-CGT),[4] and other global frameworks to enhance regional coherence and reinforce its role in promoting sustainable finance locally and beyond.

The scope of the Taxonomy will continue to evolve and expand, ensuring it remains responsive to market dynamics, technological advancements, policy priorities and evolving green and sustainable practices and expectations.

Environmental Objectives

Phase 1 of the Hong Kong Taxonomy focused on establishing substantial contribution criteria for the environmental objective on climate change mitigation. This focus will remain a priority in Phase 2.

There is growing evidence that rising global temperatures have led to widespread impacts, and even with rapid and significant emissions reductions, climate effects are expected to persist well into the foreseeable future. Consequently, the urgency for communities, industries, and nations to adapt to a changing climate and address escalating physical risks are only set to grow.

In response to this pressing challenge, Phase 2 of the Hong Kong Taxonomy introduces a new environmental objective: climate change adaptation. This addition highlights the need to effectively manage the physical climate risks associated with extreme weather events and build resilience across sectors. By incorporating adaptation as one of the core objectives, the Hong Kong Taxonomy distinguishes itself as one of the first few taxonomy frameworks globally to tackle this critical issue.

Detailed methodologies for assessing activities under the climate change mitigation and climate change adaptation objectives are outlined in the relevant sections of the Taxonomy (refer to chapters II and III).

It is recognised that other environmental objectives are also important in driving sustainable development. Therefore, the Hong Kong Taxonomy is designed with the flexibility to expand its scope in the future to address additional environmental priorities as needed.

4 In the latest iteration published in November 2024, the M-CGT builds on the bilateral EU-China CGT to include other jurisdictions.

Principles Underpinning Taxonomy Development

The development of the Hong Kong Taxonomy is anchored in four core principles to ensure its practicality, credibility, and alignment with global best practices:



A. Science-Based

The Taxonomy is grounded in the latest science and technology. It provides clear, robust, and evidence-based guidance for identifying economic activities that align with or make substantial contributions towards the climate goals outlined in the Paris Agreement.



B. Scale Up Sustainable Capital Flows

The Taxonomy enables more informed decision making on green and sustainable finance to scale up relevant capital flows, strengthening Hong Kong's position as an international financial centre and premier green hub.



C. Fit for Context

The Taxonomy caters for Hong Kong's local context, while ensuring compatibility and comparability with global standards and mainstream taxonomies. The dual focus serves local and international stakeholders, fostering broader adoption and usability.



D. Impact-driven

The Taxonomy goes beyond current regulatory requirements and encourages actions above and beyond "business-as-usual" practices. It prioritises activities that support Hong Kong's and the region's transition to a low-carbon economy.

Taxonomy in the Policy Context

The Hong Kong Taxonomy is currently designed for voluntary adoption by market participants. By providing clear and actionable guidance aligned with objectives that support the transition to a low-carbon economy, the Taxonomy aims to build market confidence among key stakeholders, including financial institutions, investors, and corporates. It also serves as an important tool for addressing greenwashing concerns, fostering greater transparency, and enhancing accountability across the market.

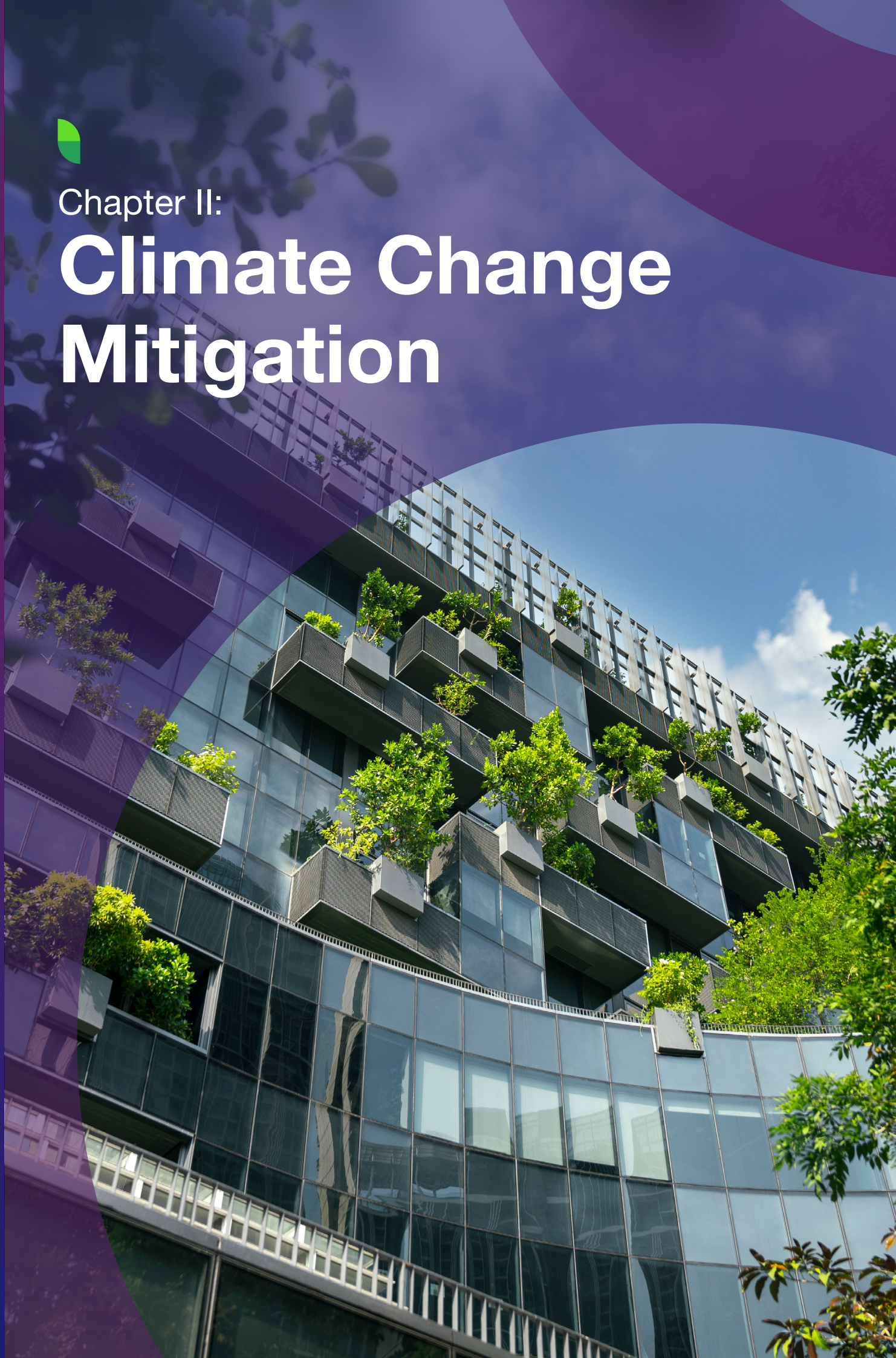
At this stage, the primary objective is to support market capacity building and promote a broad understanding and application of the Taxonomy framework. In the long run, the incorporation of the Taxonomy into banking supervisory policies will be explored to further strengthen its role in advancing green and sustainable finance.

Incorporation of Stakeholder Feedback

Ongoing stakeholder engagement is central to the development of the Hong Kong Taxonomy. Following the public consultation on Phase 2A conducted in September 2025, the Taxonomy has been updated to reflect stakeholders' feedback as appropriate, ensuring that the framework is practical, relevant, and aligned with market expectations. This iterative approach enables the Taxonomy to adapt effectively to the evolving landscape of green and sustainable finance, as well as advances in technologies, emerging industries, shifting policy priorities, and stakeholder feedback, with the aim of addressing emerging challenges and opportunities.

Chapter II:

Climate Change Mitigation



Background

Building on the foundational framework established in Phase 1 of the Hong Kong Taxonomy, which focused exclusively on defining criteria for green activities under the climate change mitigation environmental objective, Phase 2 introduces a transition category.

The inclusion of transition elements in the Taxonomy is critical for driving the decarbonisation of the real economy. It enables the mobilisation and scaling up of transition finance to high-emitting sectors, such as energy and manufacturing, to shift systematically towards more sustainable practices. By defining credible pathways for these sectors to align with net zero goals, the Taxonomy strives to minimise economic disruption in carbon-intensive industries and promote an orderly transition, with a view to balancing environmental imperatives with economic growth.

Classification Framework

For activities focused on climate change mitigation, the Taxonomy adopts a classification framework that categorises activities as **Green**, **Transition**, or **Exclusion**, based on their level of alignment with the globally recognised Paris Agreement 1.5°C climate goals.

This approach aims to uphold the highest climate standards and maintain the credibility and robustness of the Taxonomy, while also promoting usability and inclusion of activities that are in the process of transitioning to Green, as well as those that enable substantial reductions of greenhouse gas emissions in the short term. It also enables the Hong Kong Taxonomy to compare with other mainstream taxonomies that employ a similar approach to classifying activities that contribute differently towards transitioning to a low-carbon economy.

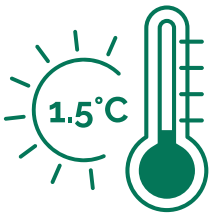
Green Category

Activities classified as Green are those that contribute substantially to climate change mitigation. These activities fall into one of two categories:



(A)

They operate at near zero emissions.



(B)

They are aligned with a 1.5°C pathway, despite not yet at near zero emissions.

In general, new activities (e.g. construction of a new building) should meet the Green criteria at the onset. The Transition category is ineligible for new activities so as to avoid carbon lock-in from high-emitting assets or infrastructure with long lifespans. This is possible given that 1.5°C trajectories do not necessarily require near zero emissions immediately but allow for steady decarbonisation towards net zero by 2050.

Transition Category

Transition, by definition, refers to the process of moving from one state or condition to another. In the context of the Taxonomy, the Transition category covers carbon-intensive activities that are on a time-bound decarbonisation journey to align their operations with a 1.5°C trajectory, ultimately reaching net zero in 2050. The Transition category also covers activities or measures that enable substantial reductions in greenhouse gas emissions in the short term, even if these activities or measures ultimately may or may not align with Green criteria.

To maintain robustness and safeguard credibility, the criteria and thresholds for the Transition category are designed to be ambitious enough to facilitate decarbonisation towards net zero, while also promoting inclusivity and allowing flexibility for laggards to achieve interim goals.

Accordingly, there are two types of classifications under the Transition category, namely **Transition Activity** and **Transition Measure**. A comparison is set out at Table 1.

Table 1. Classifications under Transition category

	Transition Activity	Transition Measure
Definition	A **standalone activity** in itself. Typically, there is a corresponding Transition Activity under the Green category.	A **component of an activity** that is designed to reduce emissions.
Scope	Refers to an activity that is currently not aligned with a 1.5°C pathway, but is either: (a) progressing towards alignment within a specified timeframe; or (b) facilitating significant short-term emissions reductions within a specified timeframe. For example, the operation of a cargo ship with decreasing carbon emissions following a defined pathway.	Refers to cases where parts of an activity can be partially or fully substituted to materially reduce Scope 1 and 2 emissions. Includes granular technologies, processes, practices, materials, or services that are designed to reduce emissions. For example, the installation of a dual-fuel engine on a ship.
Time-bound	Time-bound, with eligibility limited to a prescribed sunset date. Beyond the sunset date, both Transition Activity and Transition Measure should cease to exist. Sunset dates for different sectors/ activities are established with a view of net zero by 2050, along with a basket of factors, including technological readiness, environmental impact, regulatory policies, alignment with global frameworks, and stakeholder feedback, etc. For instance, the Maritime Transport sector has a sunset date of 2030 for transition activities and measures in order to align with international shipping standards. On the other hand, the Energy sector has a sunset date of 2035 to allow a longer lead time for the development of emission-reducing technologies and allowing energy utilities to build capacity and adapt to evolving sustainability requirements.	
Reporting for alignment	Revenue, capital expenditures (CapEx), and operational expenses (OpEx) can be reported as taxonomy-aligned.	CapEx and OpEx can be reported as taxonomy-aligned, while revenue cannot.

Table 2. Eligibility of taxonomy alignment for Green and Transition categories

	Percentage taxonomy-aligned		
	CapEx	**OpEx**	**Revenue**
Green Activity	✓	✓	✓
Transition Activity	✓	✓	✓
Transition Measure	✓	✓	✗

Exclusion Category

These activities are currently not eligible under the Taxonomy, for reasons including:

Non-compliance with Green or Transition criteria



These activities are not compatible with, or are not progressing rapidly enough towards, a 1.5°C decarbonisation pathway. Significant emissions reductions are required for these activities to align with such a pathway.

Directly unsustainable



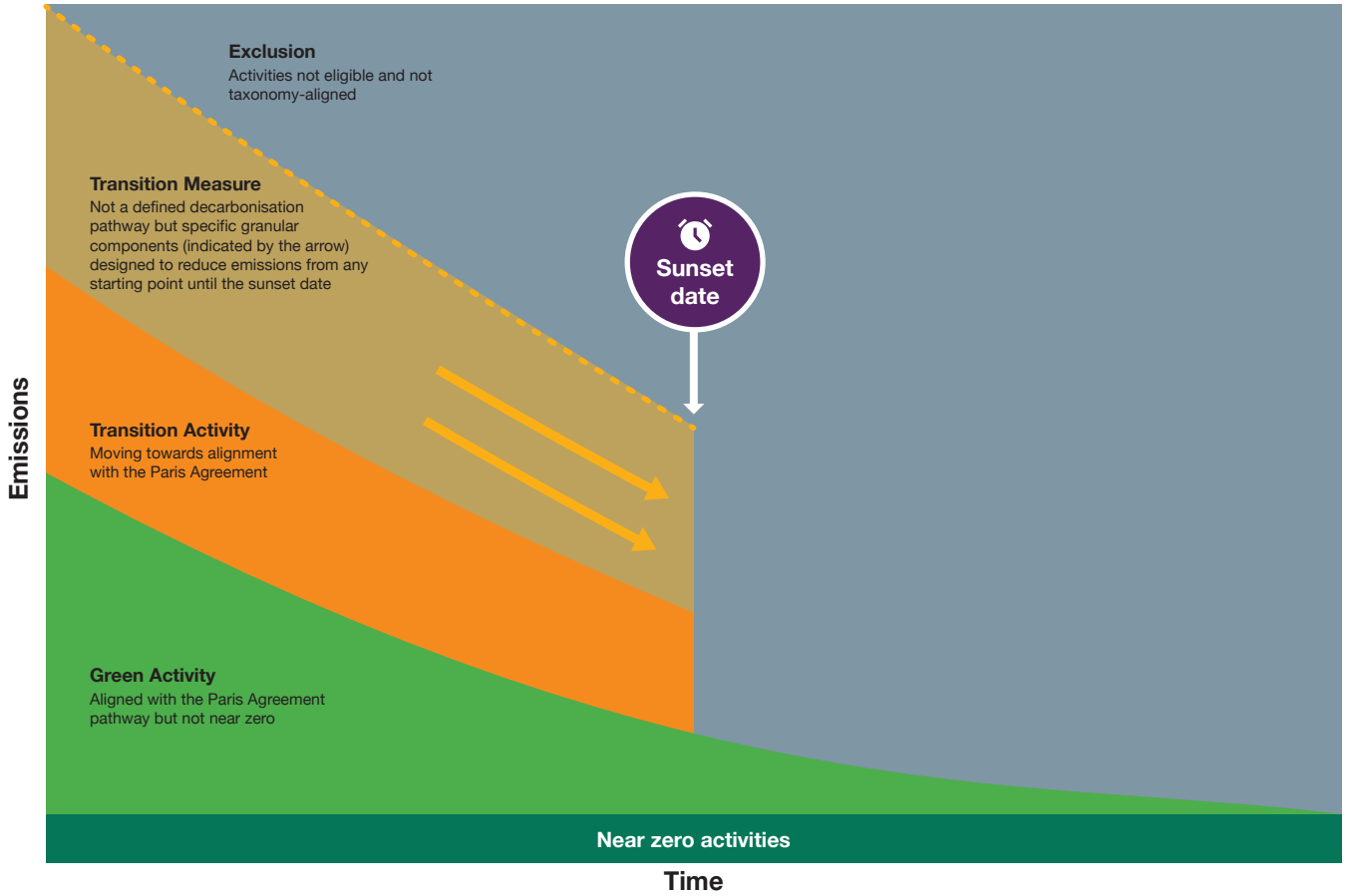
These activities are fundamentally incompatible with a 1.5°C future and will need to be phased out if emissions cannot be sufficiently reduced (e.g. fossil fuels).

Low climate materiality



Activities have minimal relevance to climate objectives and are therefore not considered for taxonomy development (e.g. administrative services).

Figure 2. Graphic representation of activity classification



Key Principles for Transition

To ensure that the criteria and thresholds for the Transition category are robust, credible and align with international standards, the following principles serve as overarching safeguards.



1. Transition applies only to activities with limited or no low-carbon alternatives to decarbonise.

Transition should guide the decarbonisation of activities that may currently be highly-emitting, but are still necessary in the long-term. This includes hard-to-abate steel and cement manufacturing activities. In other cases, where low-carbon alternatives are available, such alternatives should be prioritised instead. For example, fossil-based land transport vehicles are not eligible under the Taxonomy, as low-carbon alternatives such as electric vehicles are available.



2. Transition requires demonstrable progress.

Transition is fundamentally a process of change over time. Therefore, a suitable level of reduction in emissions intensity and/or an increase in energy efficiency to show steady improvement and growing alignment with Green criteria must be demonstrated. Where feasible, forward-looking thresholds, based on currently available technologies, should be established for different time periods, reflecting anticipated improvements. These thresholds are subject to review in future iterations of the Taxonomy and may potentially be revised as new technologies and methodologies emerge.



3. Transition is time-bound.

Transition is not a permanent state. A defined endpoint, referred to as the sunset date, must be set. By this date, all activities must either fully meet Green criteria or be deemed non-aligned with the Taxonomy.

Sunset dates are determined based on a range of factors and therefore vary across sectors/activities. For instance, the Maritime Transport sector has a sunset date of 2030, while the Energy sector has a longer lead time till 2035.



4. Transition focuses on existing infrastructure.

Transition should primarily apply to existing infrastructure and activities, rather than new developments. This approach prevents carbon lock-in and ensures that the development and deployment of low-carbon alternatives are not hindered.

It is worth noting that not all activities have a transition category. Some activities are inherently Green, and they already meet net zero objectives without the need for further decarbonisation. Solar and wind power are such examples. Additionally, some technologies are deemed advanced enough in reducing emissions to be directly categorised as Green, with widespread adoption eliminating the need for a transitional phase. An example is electric vehicles, which not only align with net zero objectives but are also technologically mature and widely utilised.

Developing Transition Thresholds

The following methods are employed to establish criteria and thresholds for the Transition category, ensuring alignment with global climate goals. Local circumstances are also considered where appropriate to enhance practicality and relevance, e.g. when considering suitable transition measures.

1 Decarbonisation pathway

Leverage credible decarbonisation pathways to define clear and achievable thresholds aligned with global climate goals. For example, the Transition Pathway Initiative (TPI) provides sector-specific guidance for aligning with a Below 2°C target.

2 Percentage improvement

Apply consistent improvement parameters in cases where there is heterogeneity in the starting emission levels among sectoral activities. For example, the International Maritime Organisation's target of a 40% reduction in greenhouse gas emissions by 2030 serves as a benchmark for maritime activities.

3 Benchmarking against high-performers approach

Establish thresholds by benchmarking against best-in-class and high performers in the industry when specific decarbonisation pathways are unavailable. For example, top-performing buildings of a national or regional building stock can serve as a reference point for setting standards.



A. Energy

Overview

The energy sector in Hong Kong is the largest contributor to the city's carbon emissions, accounting for approximately 61% of total emissions in 2023.[5] The sector has been undergoing a significant transition towards cleaner energy sources, with a key focus on reducing reliance on coal. Since 2015, the city has made significant progress, cutting the share of coal in the electricity generation fuel mix from about half to about one-fifth in 2024.[6] Building on this momentum, Hong Kong has committed to completely phasing out coal for daily electricity generation by 2035.

At the same time, the share of zero-carbon energy (including nuclear energy and renewable energy) in the total fuel mix is expected to increase significantly to about 60% to 70% before 2035 through regional cooperation. Complementing this shift, the Government aims to boost the mix of renewable energy to between 7.5% and 10% by 2035, and further increase it to 15% subsequently. To support this evolving energy landscape, significant investments are being made to enhance transmission and distribution infrastructure. This strategy is designed to enable Hong Kong to achieve net-zero electricity generation before 2050.

5 https://cnsd.gov.hk/wp-content/uploads/2025/04/Data-Tables_2023_AR5_Sector-r2_clean.pdf

6 https://cnsd.gov.hk/wp-content/uploads/2025/06/CAP2050-progress-pamphlet_EN_website.pdf

Key Updates to the Energy Sector

To support Hong Kong's energy transition, the scope of activities in the Taxonomy has expanded from three to seven, reflecting the evolving landscape of clean energy development:

Transmission and Distribution of Electricity

A new activity has been introduced to enhance the transmission and distribution of electricity, aiming to accommodate for the increasing share of renewable and low-carbon energy sources, including nuclear power.

Transmission and Distribution of Renewable and Low-carbon Gases

This new activity involves the transmission and distribution of emerging energy carriers, such as hydrogen, biogas, and other low-carbon gases to support wider integration of low-carbon gases into the energy system.

Electricity Storage Systems

A dedicated activity now covers a broad range of electricity storage technologies, including mechanical, thermal, hydro, and chemical systems. These storage solutions play a critical role in stabilising the grid and enabling greater integration of intermittent energy sources such as solar and wind.

District Heating and Cooling

The addition of district heating and cooling as a new activity reflects Hong Kong's commitment to improving energy efficiency and reducing carbon emissions in buildings.

Table 3. Energy Sector – Activity Classification

Activity		Green Activity	Transition Activity	Transition Measure
A-001	Electricity generation using concentrated solar power technology	✓		
A-002	Electricity generation using solar photovoltaic technology	✓		
A-003	Electricity generation from wind power	✓		
A-004	Transmission and distribution of electricity	✓	✓	
A-005	Transmission and distribution of renewable and low-carbon gases	✓	✓	
A-006	Storage of electricity	✓		
A-007	District heating and cooling	✓	✓	

Metrics

The primary metric used to measure the emissions intensity of electricity generation is grams of carbon dioxide equivalent per kilowatt-hour (gCO_2e/kWh). This metric standardises all greenhouse gases, such as carbon dioxide and methane, into a common unit relative to the electricity produced, enabling clear comparisons across energy sources and aligning with international standards.

Table 4 presents the emissions intensity thresholds for activities within the Energy sector, measured in gCO_2e/kWh.

- The **Green Activity thresholds**, derived from **lifecycle emissions**[7] and referencing the EU Taxonomy, are set at below 100 gCO_2e/kWh from 2025 to 2035. Starting in 2036, the threshold tightens to below 50 gCO_2e/kWh to account for residual emissions, reflecting the current average emissions associated with renewable energy. These thresholds are designed to align with a 1.5°C pathway and maintain consistency with other credible global taxonomies at each interval year. Conducting a lifecycle assessment of GHG emissions is important in assessing the level of GHG emissions across the entire energy production supply chain and not solely during combustion.

  Renewable energy technologies, including concentrated solar power, solar photovoltaic, and wind power technologies are automatically eligible because it is well recognised that their emissions intensities fall below the Green Activity thresholds. This approach simplifies the Taxonomy's implementation by allowing these technologies to qualify as Green without requiring further documentation.

- The **Transition Activity thresholds** are based on **direct emissions** to provide energy utilities time to build up their understanding of lifecycle assessment methodologies and data collection in the short-term. They are set at below 255 gCO_2e/kWh until 2030, and are expected to decline to below 145 gCO_2e/kWh by 2035 to significantly lower the average grid emissions. The thresholds directly reference the Transition Pathway Initiative's (TPI) Below 2 Degrees scenario.[8] This scenario is chosen as it reflects the robust and science-based methodology by TPI which encourages a significant short-term decarbonisation of the average grid emissions before transitioning to Green.

  Importantly, the Transition Activity thresholds do not apply to new activities, which must meet the Green Activity criteria from the outset to prevent carbon lock-in. The Transition Activity category will be phased out in 2035 – the sunset date – to promote advancements towards greener practices, after which activities under the Transition Activity category will no longer be taxonomy-aligned.

The thresholds described above apply solely to baseload energy and do not extend to energy peaking or backup power situations. In all cases, solid fossil fuels are excluded from the Taxonomy.

7 Lifecycle assessments of GHG emissions should be calculated based on project-specific data where available, using ISO 14067:2018, ISO 14064-1:2018, or the European Commission Recommendation 2013/179/EU, and verified by an independent third party.

8 https://www.transitionpathwayinitiative.org/sectors/electricity-utilities

Table 4. Emissions intensity thresholds (gCO_2e/kWh) for the Energy sector

	2025-2030	2031-2035	2036-2040	2041-2045	2046-2050
Green Activity Thresholds (lifecycle emissions)	≤100	≤100	≤50	≤50	≤50
Transition Activity Thresholds (direct emissions)	≤255	≤145	N/A	N/A	N/A
Exclusion	All solid fossil fuels				

In the future, as more granular details on Hong Kong's decarbonisation plan for the energy sector becomes available, a localised decarbonisation pathway tailored specifically for Hong Kong may be considered for incorporation in the Taxonomy. This pathway will reflect Hong Kong's unique energy landscape and local context and align with the Government's latest policy objectives and climate commitments, while maintaining consistency with global best practices.

Activity cards

A-001 Electricity generation using concentrated solar power technology

Sector	Energy
Activity Category	Electric power generation
Activity Description	Construction or operation of facilities using solar thermal power to generate electricity.
Associated ISIC Code(s)	3510
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity is automatically eligible if it complies with the activity description.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

A-002 Electricity generation using solar photovoltaic technology

Sector	Energy
Activity Category	Electric power generation
Activity Description	Construction or operation of electricity generation facilities that produce electricity using solar photovoltaic technology.
Associated ISIC Code(s)	3510
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity is automatically eligible if it complies with the activity description.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

A-003 Electricity generation from wind power

Sector	Energy
Activity Category	Electric power generation
Activity Description	Construction or operation of electricity generation facilities that produce electricity from wind power, including offshore wind power.
Associated ISIC Code(s)	3510
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity is automatically eligible if it complies with the activity description.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

A-004 Transmission and distribution of electricity

Sector	Energy
Activity Category	Transmission and distribution
Activity Description	Construction, retrofitting, or operation of transmission and distribution networks for electricity.
Associated ISIC Code(s)	3510
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with one of the following criteria: (1) Transmission and distribution infrastructure dedicated to providing a direct connection or expanding an existing connection to power plants that meet the Green Activity thresholds in Table 4. Connections to power plants providing solar, wind, or nuclear power, or a combination of these sources, automatically qualify. (2) Transmission and distribution infrastructure dedicated to providing intercountry or regional grid connection to access power plants that meet the Green Activity thresholds in Table 4. (3) Transmission and distribution infrastructure on a decarbonisation trajectory where at least 67% of the newly connected generation capacity meet the Green thresholds in Table 4 over a five-year period. (4) Average system grid emissions factor meets the Green Activity thresholds in Table 4 over a five-year period. (5) Enabling ICT systems and smart management systems that support the compliance of any one of the above Green criteria.
Transition Activity	The activity complies with one of the following criteria: (1) Transmission and distribution infrastructure dedicated to providing a direct connection or expanding an existing connection to power plants that meet the Transition Activity thresholds in Table 4. (2) Transmission and distribution infrastructure dedicated to providing intercountry or regional grid connection to access power plants that meet the Transition Activity thresholds in Table 4. (3) Transmission and distribution infrastructure on a decarbonisation trajectory where at least 50% of the newly connected generation capacity meet the Green Activity thresholds in Table 4 over a five-year period. (4) Average system grid emissions factor meets the Transition Activity thresholds in Table 4 over a five-year period. (5) Enabling ICT systems and smart management systems that support the compliance of any one of the above Transition criteria. The Transition Activity will sunset in 2035.
Transition Measure	N/A.
Exclusion	N/A.

A-005 Transmission and distribution of renewable and low-carbon gases

Sector	Energy
Activity Category	Transmission and distribution
Activity Description	Construction, retrofitting, or operation of transmission and distribution networks for renewable and low-carbon gases. Renewable and low-carbon gases refer to non-fossil gases, including biogas, biomethane, and hydrogen and its derivatives.
Associated ISIC Code(s)	3520, 4930
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with criteria (1) or (2), and meets (3). (1) Transmission and distribution networks that transport 100% renewable and low-carbon gases. (2) Retrofit of fossil gaseous fuels distribution lines to transport 100% renewable and low-carbon gases. (3) Renewable and low-carbon gases must meet the respective manufacturing criteria: (a) Hydrogen and ammonia comply with the criteria for manufacturing of the respective gases specified in this Taxonomy (refer to Section E). (b) Biogas and biomethane must have a lifecycle emission of ≤16.0 gCO_2e/MJ.[9] Their raw materials are from existing supply chains without using dedicated arable land. Only waste and residues are eligible. In cases where there may be methane leakage, leak detection and repair of existing gas pipelines and other network components should be implemented.
Transition Activity	The activity complies with all of the following: (1) Retrofit of existing transmission and distribution networks to transport ≥50vol% renewable and low-carbon gases. (2) Renewable and low-carbon gases must meet the respective manufacturing criteria as indicated in Green Activity criteria (3). The Transition Activity will sunset in 2035.
Transition Measure	N/A.
Exclusion	N/A.

9 The threshold for biogas is derived by taking an 80% emissions reduction from a fossil gas comparator of 80gCO_2e/MJ, in line with the EU RED II.

A-006 Storage of electricity

Sector	Energy
Activity Category	Electric power storage
Activity Description	Construction or operation of facilities that store electricity and return it at a later time in the form of electricity.
Associated ISIC Code(s)	N/A.
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity involves one of the following: (1) Mechanical energy storage systems, including flywheels and compressed air. (2) Thermal energy storage systems, including pumped heat electrical storage and liquid air energy storage. (3) Pumped hydropower storage. (4) Chemical energy storage systems, including: (a) Electrochemical storage systems, including batteries and capacitors. (b) Fuels, including hydrogen or ammonia, which comply with the criteria for manufacturing of the respective chemicals specified in this Taxonomy (refer to Section E).
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

A-007 District heating and cooling

Sector	Energy
Activity Category	District heating and cooling
Activity Description	Construction, retrofitting, or operation of infrastructure related to district heating and cooling.
Associated ISIC Code(s)	3530
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with one of the following: (1) Construction of district heating and cooling systems. (2) Operation of district heating and cooling systems that use at least one of the following: (a) 50% renewable energy. (b) 50% low-carbon energy (including nuclear power). (c) 50% waste heat. (d) 75% cogenerated heat. (e) 50% of a combination of renewable energy, low-carbon energy, waste heat, or cogenerated heat.
Transition Activity	The activity complies with the following: (1) Operation of district heating and cooling systems that use at least one of the following: (a) 30% renewable energy. (b) 30% low-carbon energy (including nuclear power). (c) 30% waste heat. (d) 30% cogenerated heat. (e) 30% of a combination of renewable energy, low-carbon energy, waste heat, or cogenerated heat. The Transition Activity will sunset in 2035.
Transition Measure	N/A.
Exclusion	Waste heat and cogenerated heat derived from fossil fuel-based operations are excluded.



B. Transportation

Overview

The transport sector in Hong Kong is the second largest contributor to carbon emissions, accounting for approximately 18% of total emissions in 2023,[10] highlighting the urgent need for effective measures to mitigate its environmental impact. In 2023, over 11 million passenger journeys were made daily on a diverse and efficient multi-modal public transport system, including railways, trams, buses, minibuses, taxis, and ferries.[11] Meanwhile, the total registration of electric private cars rose from 17,998 in 2020 to 107,762 as of April 2025.[12]

The above figures underscore the importance of enhancing the sustainability of the transport sector and rapidly decarbonising. The Hong Kong Government has committed to achieving zero carbon emissions from vehicles and the transport sector by 2050,[13] setting a clear target to transition towards a more sustainable and environmentally friendly transportation system.

10 https://cnsd.gov.hk/wp-content/uploads/2025/04/Data-Tables_2023_AR5_Sector-r2_clean.pdf

11 https://www.gov.hk/en/about/abouthk/factsheets/docs/transport.pdf

12 Vehicle registration and licensing transport figures in Hong Kong, as reported by the Transport Department, are current as of April 2025. https://www.td.gov.hk/en/transport_in_hong_kong/transport_figures/vehicle_registration_and_licensing/index.html

13 Hong Kong Climate Action Plan 2050 (2021, page 35)

Key Updates to the Taxonomy

To support the transition, the Transportation sector of the Taxonomy is updated to expand its scope from four to six economic activities. This expansion demonstrates a strong commitment to sustainability and aims to facilitate green and sustainable capital flows into the sector.

Land Transport

A new activity is introduced to cover electric and hydrogen motorbikes, passenger cars, and light commercial vehicles, emphasising the shift towards more environmentally friendly transportation options.

Maritime Transport

Green activity thresholds are updated to align with guidance published by the International Maritime Organisation (IMO), including the Fourth Greenhouse Gas Study 2020, 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, and IMO Net-Zero Framework. Additionally, new transition pathways have been established to guide the sector towards more sustainable practices.

Low-carbon Transport Infrastructure

Activities aimed at supporting the construction and retrofitting of sustainable infrastructure across land, maritime, and air transport systems are introduced.

Table 5. Transport Sector – Activity Classification

		Green Activity	Transition Activity	Transition Measure
Land Transport				
B-001	Public transportation system in urban and suburban areas	✓		
B-002	Personal mobility devices, cycle logistics	✓		
B-003	Transport by motorbikes, passenger cars and light commercial vehicles	✓		
Maritime Transport				
B-004	Transportation of freight by sea	✓	✓	✓
B-005	Transportation of passengers by sea	✓	✓	✓
Low-carbon Transport Infrastructure				
B-006	Low-carbon transport infrastructure	✓		

Land Transport

Criteria and Thresholds

The criteria and thresholds for Green Activity remain aligned with Phase 1 of the Taxonomy, which requires zero direct (tailpipe) CO_2 emissions for all land transport activities in order to align with the goal of zero vehicular emissions. Transition Activity and Transition Measure are not applicable, as technology has advanced sufficiently to allow new vehicles to meet the Green Activity criteria.

Activity cards

B-001 Public transportation system in urban and suburban areas

Sector	Transportation
Activity Category	Land transport
Activity Description	Purchase, financing, leasing, rental, operation, manufacturing, repair, maintenance, retrofitting, repurposing, and upgrading of urban or suburban transport vehicles for passenger transport. This includes heavy rail, light rail, urban rail, high-speed rail, tram, high-capacity transport, public transportation vehicles, or other land transportation facilities.
Associated ISIC Code(s)	4912, 4921, 4922
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with one of the following criteria: (1) Urban or suburban passenger transport have zero direct (tailpipe) CO_2 emissions. (2) Trains and passenger coaches have zero direct (tailpipe) CO_2 emissions. (3) Trains and passenger coaches have zero direct (tailpipe) CO_2 emissions when operated on tracks with the necessary infrastructure. When the necessary infrastructure is not available, they can switch to a conventional engine in bimode.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

B-002 Personal mobility devices, cycle logistics

Sector	Transportation
Activity Category	Land transport

Activity Description	Selling, purchasing, financing, leasing, renting, operation, manufacturing, repair, maintenance, retrofitting, repurposing, and upgrading of personal mobility or transport devices for passenger or freight transport. The propulsion comes from the physical activity of the user, from a zero emissions motor, or a combination of both. This includes electric or hydrogen based zero emission motors, such as electric scooters[14] and wheelchairs.
Associated ISIC Code(s)	3092, 4649, 4763, 9529
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with the following criteria: (1) Personal mobility devices are powered either by the physical activity of the user, by a zero emissions motor, or by a combination of both.[15]
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

B-003 Transport by motorbikes, passenger cars and light commercial vehicles

Sector	Transportation
Activity Category	Land transport
Activity Description	Purchase, financing, renting, leasing, operation, manufacturing, repair, maintenance, retrofitting, repurposing, and upgrading of motorbikes, passenger cars or light commercial vehicles.[16] This includes private electric or hydrogen vehicles.
Associated ISIC Code(s)	2920, 3091, 4540, 4922, 7710
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with the following criteria: (1) Direct (tailpipe) CO_2 emission of the vehicle is zero.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

14 Electric scooters refer specifically to electric kick scooters, which are classified as electronic mobility devices and are distinct from motorbikes or motorcycles.

15 The operation of personal mobility devices on roads, including electric mobility devices, should comply with relevant local regulations.

16 Light commercial vehicles refer to vehicles with a maximum weight limit that complies with relevant local regulations. In Hong Kong, the maximum weight limit for light commercial vehicles is 5.5 tonnes.

Maritime Transport

Criteria and Thresholds



The thresholds in Phase 1 of the Taxonomy were set with reference to the Climate Bonds Initiative Shipping Criteria, which were based on the IMO's Third Greenhouse Gas Study.[17] With a view to reflecting the most recent decarbonisation pathway for the shipping sector, the relevant thresholds in Phase 2A are revised to align with the latest IMO's Fourth Greenhouse Gas Study.[18] Tables 6 and 7 in the activity cards present the decreasing emissions intensity thresholds for different types and sizes of ships, outlined in 10-year intervals beginning in 2025. The emissions intensity threshold is designed to decline linearly towards zero by 2050.

To align with the Green Activity criteria, ships will need to align with either the Energy Efficiency Operation Index (EEOI) or Annual Efficiency Ratio (AER) throughout their economic lifespan.



Transition Activity will remain eligible until the 2030 sunset date.

Three pathways are provided for ships to achieve compliance with the Green Activity criteria by the 2030 sunset date.

- Pathway 1: Ships can achieve a 40% reduction in CO_2 emissions per transport work compared to 2008 levels, in line with the objectives of the 2023 IMO Greenhouse Gas Strategy.[19]

- Pathway 2 and 3: Ships can meet the Energy Efficiency Design Index (EEDI) or Energy Efficiency Existing Ship Index (EEXI) thresholds. These thresholds require relative percentage improvements over an EEDI reference line defined by the IMO, specifically requiring a 20% improvement for EEDI and a 10% improvement for EEXI. Additionally, ships complying with the EEXI requirements must meet a yearly average GHG intensity threshold of 73.7 gCO_2e/MJ for the energy used on board, in alignment with the IMO's Net-Zero Framework.

Regardless of the selected pathway, there must be a managed reduction plan detailing how the ship will be retrofitted to achieve compliance with the Green Activity criteria, including an evaluation of the cost-effectiveness of the relevant retrofits.

17 https://www.climatebonds.net/files/documents/Shipping_Criteria_Document_September-2020_2025-03-18-170716_jgtu.pdf

18 https://www.imo.org/en/ourwork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx

19 https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/annex/MEPC%2080/Annex%2015.pdf

Transition Measure

Transition Measure will remain eligible until the 2030 sunset date.

Transition Measure is designed in consideration of the challenges faced by the shipping sector in accessing green finance, alongside technological limitations. Examples include engines of dual-fuel ships vessels and those designed for future adaptation to operate entirely on renewable energy or can meet the Green Activity criteria over time.

Transition Measures are only applicable to entities that have a transition plan aligned with the 1.5°C target.

Activity cards

B-004 Transportation of freight by sea

Sector	Transportation
Activity Category	Maritime transport
Activity Description	Purchase, financing, leasing, chartering (with or without crew), and operation of ships designed and equipped for transport of freight by sea.
Associated ISIC Code(s)	5012
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with the following criteria: Ships must comply with emissions intensity thresholds, measured in Energy Efficiency Operational Indicator (EEOI) or Annual Efficiency Ratio (AER), throughout their economic lifespan, as outlined in Table 6. These thresholds are determined based on the ship's fleet type and size category. The denominator is expressed in tonne-nautical miles (t-nm) for EEOI and deadweight tonnage-nautical miles (dwt-nm) for AER.

Table 6. Emissions Intensity Thresholds (Freight Ships)

Type	Size	2025		2030		2040		2050
		EEOI	AER	EEOI	AER	EEOI	AER	EEOI/ AER
Bulk carrier	0-9999 (DWT)	28.6	17.3	22.9	13.9	11.4	6.9	0
	10000-34999 (DWT)	9.5	5.2	7.6	4.6	3.8	2.3	0
	35000-59999 (DWT)	7.0	3.9	5.6	3.4	2.8	1.7	0
	60000-99999 (DWT)	5.9	2.9	4.7	2.6	2.3	1.3	0
	100000-199999 (DWT)	4.1	1.9	3.3	1.7	1.7	0.8	0
	200000+ (DWT)	3.7	1.7	2.9	1.4	1.5	0.7	0

Green Activity

Type	Size	2025		2030		2040		2050
		EEOI	AER	EEOI	AER	EEOI	AER	EEOI/ AER
Chemical tanker	0-4999 (DWT)	43	30.7	34.4	26.7	17.2	13.3	0
	5000-9999 (DWT)	29.5	20	23.6	17.4	11.8	8.7	0
	10000-19999 (DWT)	19.5	12.2	15.6	10.6	7.8	5.3	0
	20000-39999 (DWT)	12.3	7.8	9.9	6.8	4.9	3.4	0
	40000+ (DWT)	9.5	5.4	7.6	4.7	3.8	2.3	0
Container	0-999 (TEU)	27.3	16.6	21.9	14.4	10.9	7.2	0
	1000-1999 (TEU)	20.9	12.2	16.8	10.6	8.4	5.3	0
	2000-2999 (TEU)	15.2	8.3	12.1	7.2	6.1	3.6	0
	3000-4999 (TEU)	13.2	7.4	10.6	6.4	5.3	3.2	0
	5000-7999 (TEU)	12.7	7.2	10.1	6.3	5.1	3.1	0
	8000-11999 (TEU)	10.5	6.0	8.4	5.2	4.2	2.6	0
	12000-14500 (TEU)	8.2	4.9	6.6	4.3	3.3	2.1	0
	14500-19999 (TEU)	6.5	4.0	5.2	3.4	2.6	1.7	0
	20000+ (TEU)	6.2	3.7	4.9	3.2	2.5	1.6	0
General cargo	0-4999 (DWT)	27	16.4	21.6	14.3	10.8	7.1	0
	5000-9999 (DWT)	23.8	13.5	19.0	11.8	9.5	5.9	0
	10000-19999 (DWT)	20.9	11.7	16.7	10.2	8.3	5.1	0
	20000+ (DWT)	10.7	6.0	8.6	5.2	4.3	2.6	0
Other liquid tanker	0-999 (DWT)	1198.8	999.5	959.0	869.1	479.5	434.6	0
	1000+ (DWT)	18.3	12.7	14.6	11.1	7.3	5.5	0
Refrig-erated bulk	0-1999 (DWT)	158.3	116.3	126.6	101.1	63.3	50.6	0
	2000-5999 (DWT)	84	51.1	67.2	44.4	33.6	22.2	0
	6000-9999 (DWT)	64.2	34.3	51.4	29.8	25.7	14.9	0
	10000+ (DWT)	49.1	26.2	39.3	22.8	19.7	11.4	0
Ro-Ro	0-4999 (DWT)	173	117.9	138.4	102.5	69.2	51.3	0
	5000-9999 (DWT)	49.6	31.8	39.7	27.6	19.8	13.8	0
	10000-14999 (DWT)	41.7	28.5	33.4	24.8	16.7	12.4	0
	15000+ (DWT)	21.2	12.8	16.9	11.1	8.5	5.6	0

Green Activity

Type	Size	2025		2030		2040		2050
		EEOI	AER	EEOI	AER	EEOI	AER	EEOI/ AER
Vehicle	0-29999 (GT)	112.2	35.4	89.8	30.8	44.9	15.4	0
	30000-49999 (GT)	55	15.6	44.0	13.6	22.0	6.8	0
	50000+ (GT)	44.8	11.9	35.8	10.3	17.9	5.2	0

Note:
DWT: Deadweight tonnage
TEU: Twenty-foot equivalent unit
GT: Gross tonnage

Transition Activity

The activity complies with (1) or (2) or (3), and meets (4):

(1) 40% reduction in CO_2 emissions per transport work[20] by 2030, compared to 2008.[21]

(2) Attained an Energy Efficiency Design Index (EEDI) value equivalent to reducing the EEDI reference line by at least 20% below the EEDI requirements applicable on 1 April 2022; and meets all of the following:

  (a) Able to run on zero direct (tailpipe) CO_2 emission fuels or fuels from renewable sources.

  (b) Able to plug-in at berth.

  (c) For gas-fuelled ships, demonstrate the use of state-of-the-art measures and technologies to mitigate methane slippage emissions.

(3) Attained an Energy Efficiency Existing Ship Index (EEXI) equivalent to reducing the EEDI reference line by at least 10% below the EEXI requirements applicable on 1 January 2023; and meets a 73.7gCO_2e/MJ yearly average GHG intensity threshold for energy used on-board.[22]

(4) A managed reduction plan outlining the retrofit technologies or fuel switch options that the ship will be able to implement to comply with the trajectory in Table 6. Explanations are required to demonstrate that the plan is cost-effective.

  At minimum, the plan must include:

  (a) Use of alternative fuels: Indicate the time period (e.g. range of years) when a significant fuel switch is anticipated to be necessary.

  (b) Modifications to fuel storage: Specify any required changes to onboard fuel storage systems, including additional space needed and how these changes may impact cargo carrying capacity.

  (c) Modifications to fuel handling: Outline any necessary adjustments to fuel handling systems, including bunkering systems.

  (d) Modifications to machinery: Detail any required updates or changes to the ship's machinery.

  (e) Cost estimates: Provide an estimate of the total additional costs, covering both operating expenses and capital expenditures.

Note:
To align with the sunset date of 2030, the use of EEDI and EEXI criteria needs to transition to operational metrics, i.e. EEOI or AER, by 2030.

Zero direct (tailpipe) CO_2 emission fuels include hydrogen and ammonia that are in line with their respective Taxonomy criteria (Green Activity) under the Manufacturing sector (refer to Section E).

20 Per transport work is determined as a factor of distance travelled by the ship multiplied by its capacity of cargo carried (or the ship's capacity in the absence of actual data). https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Circ-684.pdf; https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Air%20pollution/MEPC.336(76).pdf

21 In the Initial IMO Strategy on Reduction of GHG Emissions from Ships (2018), the year 2008 was taken as the baseline year for calculating carbon intensity of international shipping. The baseline values for 2008 are reflected under the Second IMO GHG Study, Table 9.1, last column on 'Total efficiency'. https://www.mardep.gov.hk/filemanager/en/share/msnote/pdf/msin2302anx13.pdf

22 This is aligned with the IMO Net-Zero Framework – direct compliance target for 2030.

Transition Measure	The measure complies with (1) or (2), and meets (3). The measure must be implemented before the sunset date of 2030. (1) Installation, upgrade, and operation of dual fuel vessel engines that are able to run on zero direct (tailpipe) CO_2 emissions fuels and derive at least 25% of their energy from zero direct (tailpipe) CO_2 emission fuels or plug-in power for their normal operation at sea and in ports. (2) Installation, upgrade, and operation of vessel engines designed at the outset to allow for modernisation or adaptation to use 100% renewable energy or meet the Green Activity criteria by 2030. (3) The entity has a transition plan aligned with 1.5°C pathway. **Note:** Zero direct (tailpipe) CO_2 emission fuels include hydrogen and ammonia that are in line with their respective Taxonomy criteria (Green Activity) under the Manufacturing sector (refer to Section E).
Exclusion	The following ships that are designed and dedicated for the transportation of fossil fuels are excluded: (1) Crude oil tankers and liquefied gas tankers. (2) Dry Bulk Carriers where more than 25% of tonnage transported annually is coal or other fossil fuels, based on the bills of lading. This threshold declines geometrically at 5.3% from the year 2020 onwards, as consistent with the IEA SDS.[23] (3) Assets used for the exploration or production of fossil fuels (including floating production, supply and offloading (FPSO) ships; subsea, umbilicals, risers, flowlines (SURF) ships; drilling units; platform supply ships; and well intervention ships).

B-005 Transportation of passengers by sea

Sector	Transportation
Activity Category	Maritime transport
Activity Description	Purchase, financing, leasing, chartering (with or without crew), and operation of ships designed and equipped for transport of passengers by sea.
Associated ISIC Code(s)	5011
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with the following criteria: Ships must comply with emissions intensity thresholds, measured in Energy Efficiency Operational Indicator (EEOI) or Annual Efficiency Ratio (AER), throughout their economic lifespan, as outlined in Table 7. These thresholds are determined based on the ship's fleet type and size category. The denominator is expressed in tonne-nautical miles (t-nm) for EEOI and deadweight tonnage-nautical miles (dwt-nm) for AER.

23 https://iea.blob.core.windows.net/assets/a72d8abf-de08-4385-8711-b8a062d6124a/WEO2020.pdf

Green Activity

Table 7. Emissions Intensity Thresholds (Passenger Ships)

Type	Size	2025		2030		2040		2050
		EEOI	AER	EEOI	AER	EEOI	AER	EEOI/ AER
Ferry – Pax only	0-299 (GT)	852	722	681.6	627.8	340.8	313.9	0
	300-999 (GT)	1125	803.7	900.4	698.9	450.2	349.4	0
	1000-1999 (GT)	223.5	192.9	178.8	167.8	89.4	83.9	0
	2000+ (GT)	227.2	165	181.8	143.5	90.9	71.8	0
Cruise	0-1999 (GT)	557	408.7	445.6	355.4	222.8	177.7	0
	2000-9999 (GT)	257.2	140.2	205.8	121.9	102.9	61	0
	10000-59999 (GT)	119.1	93.2	95.3	81.1	47.6	40.5	0
	60000-99999 (GT)	131.2	106.2	104.9	92.3	52.5	46.2	0
	100000-149999 (GT)	114.5	92.7	91.6	80.6	45.8	40.3	0
	150000+ (GT)	95.2	74.5	76.1	64.8	38.1	32.4	0
Ferry - RoPax	0-1999 (GT)	570.5	338	456.4	293.9	228.2	146.9	0
	2000-4999 (GT)	275.2	185.4	220.1	161.2	110.1	80.6	0
	5000-9999 (GT)	205.4	136.6	164.3	118.8	82.2	59.4	0
	10000-19999 (GT)	148.6	83.5	118.9	72.6	59.4	36.3	0
	20000+ (GT)	116.4	81.7	93.1	71	46.6	35.5	0

Note:
GT: Gross tonnage

Transition Activity

The activity complies with (1) or (2) or (3), and meets (4):

(1) 40% reduction in CO_2 emissions per transport work[24] by 2030, compared to 2008.[25]

(2) Attained an Energy Efficiency Design Index (EEDI) value equivalent to reducing the EEDI reference line by at least 20% below the EEDI requirements applicable on 1 April 2022; and meets all of the following:

  (a) Able to run on zero direct (tailpipe) CO_2 emission fuels or fuels from renewable sources.

  (b) Able to plug-in at berth.

  (c) For gas-fuelled ships, demonstrate the use of state-of-the-art measures and technologies to mitigate methane slippage emissions.

(3) Attained an Energy Efficiency Existing Ship Index (EEXI) equivalent to reducing the EEDI reference line by at least 10% below the EEXI requirements applicable on 1 January 2023; and meets a 73.7gCO_2e/MJ yearly average GHG intensity threshold for energy used on-board.[26]

24 Per transport work is determined as a factor of distance travelled by the ship multiplied by its capacity of cargo carried (or the ship's capacity in the absence of actual data). https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Circ-684.pdf; https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Air%20pollution/MEPC.336(76).pdf

25 In the Initial IMO Strategy on Reduction of GHG Emissions from Ships (2018), the year 2008 was taken as the baseline year for calculating carbon intensity of international shipping. The baseline values for 2008 are reflected under the Second IMO GHG Study, Table 9.1, last column on 'Total efficiency'. https://www.mardep.gov.hk/filemanager/en/share/msnote/pdf/msin2302anx13.pdf

26 This is aligned with the IMO Net-Zero Framework – direct compliance target for 2030.

Transition Activity	(4) A managed reduction plan outlining the retrofit technologies or fuel switch options that the ship will implement to comply with the trajectory in Table 7. Explanations are required to demonstrate that the plan is cost-effective. At minimum, the plan must include: (a) Use of alternative fuels: Indicate the time period (e.g. range of years) when a significant fuel switch is anticipated to be necessary. (b) Modifications to fuel storage: Specify any required changes to onboard fuel storage systems, including additional space needed and how these changes may impact cargo carrying capacity. (c) Modifications to fuel handling: Outline any necessary adjustments to fuel handling systems, including bunkering systems. (d) Modifications to machinery: Detail any required updates or changes to the ship's machinery. (e) Cost estimates: Provide an estimate of the total additional costs, covering both operating expenses and capital expenditures. **Note:** To align with the sunset date of 2030, the use of EEDI and EEXI criteria needs to transition to operational metrics, i.e. EEOI or AER, by 2030. Zero direct (tailpipe) CO_2 emission fuels include hydrogen and ammonia that are in line with their respective Taxonomy criteria (Green Activity) under the Manufacturing sector (refer to Section E).
Transition Measure	The measure complies with (1) or (2), and meets (3). The measure must be implemented before the sunset date of 2030. (1) Installation, upgrade, and operation of dual fuel vessel engines that are able to run on zero direct (tailpipe) CO_2 emissions fuels and derive at least 25% of their energy from zero direct (tailpipe) CO_2 emission fuels or plug-in power for their normal operation at sea and in ports. (2) Installation, upgrade, and operation of vessel engines designed at the outset to allow for modernisation or adaptation to use 100% renewable energy or meet the Green Activity criteria by 2030. (3) The entity has a transition plan aligned with 1.5°C pathway. **Note:** Zero direct (tailpipe) CO_2 emission fuels include hydrogen and ammonia that are in line with their respective Taxonomy criteria (Green Activity) under the Manufacturing sector (refer to Section E).
Exclusion	Ships built or operated for the sole purpose of transporting passengers to-and-from assets or infrastructure that are dedicated to the production or transport of fossil fuels.

Low-carbon Transport Infrastructure

Activity card

B-006 Low-carbon transport infrastructure

Sector	Transportation
Activity Category	Low-carbon transport infrastructure
Activity Description	Construction, modernisation, operation, maintenance, installation, repair, and retrofitting of infrastructure that enables the decarbonisation of road transport, rail transport, maritime transport, and air transport; as well as other infrastructure, installations, and related facilities that support mass transport and transit.

Associated ISIC Code(s)	16XX*, 22XX*, 23XX*, 25XX*, 27XX*, 2814, 3020, 4100, 4210, 4220, 4290, 43XX*, 5221, 5222, 5223, 5224, 5529, 7110, 7120 * Includes all activities classified under the division denoted by the first two digits of the relevant ISIC code.
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity is within scope and complies with the criteria under the designated category: **A. Personal mobility and cycle logistics** Eligible infrastructure includes: (1) Pavements, bike lanes and pedestrian zones, and bicycle parking. (2) Electrical charging and hydrogen refuelling stations and systems installations. **B. Rail transport** Eligible infrastructure includes: (1) Trackside infrastructure and associated subsystems, including all corresponding infrastructure, installations and related facilities, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems, where all trackside infrastructure and associated subsystems are automatically eligible if: (a) Electrified. (b) Not electrified, but comply with one of the following: (i) Plan is in place for electrification specifically for line tracks and sidings. (ii) Infrastructure is expected to be used by zero direct (tailpipe) CO_2 emission trains within 10 years from its commissioning.[27] (2) Infrastructure and installations that principally facilitate trans-shipment: (a) For freight transport: terminal infrastructure and superstructures for loading, unloading, and trans-shipment of goods. (b) For passenger transport: infrastructure, installations, and related facilities that principally facilitate the transfer of passengers from rail to rail or from other modes to rail. **C. Road transport** Eligible infrastructure includes: (1) Electric vehicle (EV) charging solutions including: (a) Upgrades to electricity grid connections for EV charging. (b) Solutions and charging equipment related to optimising and/or providing the necessary electrical capacity for EV charging. (2) Hydrogen refuelling stations. (3) Electric road systems. (4) Infrastructure and installations that principally facilitate trans-shipment, including terminal infrastructure and superstructures for loading, unloading, and trans-shipment of goods. (5) Infrastructure, installations, and related facilities that principally facilitate urban and suburban public passenger transport, including associated signalling systems for tram, and rail systems.

27 This is to ensure that the supporting rail infrastructure supports the increased use of electrified or zero direct (tailpipe) emission trains. For avoidance of doubt, the infrastructure can still be used beyond 10 years.

Green Activity	**D. Maritime transport** Eligible infrastructure includes: (1) Electricity charging or hydrogen-based refuelling. (2) Infrastructure dedicated to supplying shore-side electrical power to ships at berth. (3) Infrastructure dedicated to supporting the net-zero operations of ports. (4) Infrastructure and installations that principally facilitate trans-shipment, including terminal infrastructure and superstructures for loading, unloading, and transhipment of goods. **E. Air transport** Eligible infrastructure includes: (1) Infrastructure dedicated to one of the following: (a) Fixed electrical ground power and preconditioned air to stationary aircrafts. (b) Electrical charging for aircrafts and ground handling vehicles and equipment at the airport. (c) Hydrogen refuelling for aircrafts and ground handling vehicles and equipment at the airport. (2) Infrastructure dedicated to supporting the net-zero operations of airports, including: (a) Electric charging points. (b) Electricity grid upgrades. (c) Hydrogen refuelling stations. (d) Resource circularity. (e) Renewable energy. (3) Infrastructure that optimises energy and system efficiency to reduce emissions from airport's own operations. (4) Air traffic management infrastructure, processes, or activities dedicated to enabling zero-emission aviation.[28] (5) Infrastructure and installations that principally facilitate trans-shipment, including terminal infrastructure and superstructures for loading, unloading, and transhipment of goods. **Note:** Trans-shipment refers to the transfer of freight or cargo from one mode of transport to another, as well as the transfer of freight or cargo to an intermediate location(s) before reaching a final destination.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	Infrastructure that is dedicated to one of the following: (1) The support of internal combustion engines vehicles, transport or storage of fossil fuels. (2) The operation of fossil fuel-based transport (passenger and freight), including parking facilities and fossil fuel filling stations.

28 References include (but are not limited to) the the measures listed in Appendix M4 of the Operations Sub Group Report of the ICAO Report on the Feasibility of a Long-term Aspirational Goal (LTAG) for International Civil Aviation CO_2 emissions – https://www2023.icao.int/environmental-protection/LTAG/Documents/ICAO_LTAG_Report_AppendixM4.pdf



C. Construction

Overview

Buildings account for about 90% of Hong Kong's total electricity consumption, and over 60% of carbon emissions in Hong Kong is attributed to electricity generation for buildings.[29] As part of the Climate Action Plan 2050, the Hong Kong Government has set out to reduce the overall electricity consumption of buildings through promoting green buildings, improving buildings' energy efficiency, and promoting a low-carbon lifestyle. By 2050, the Government aims to reduce electricity consumption in commercial buildings by 30% to 40% and in residential buildings by 20% to 30%, using 2015 as the baseline. Half of these targets are expected to be met by 2035.[30]

29 https://cnsd.gov.hk/wp-content/uploads/pdf/CAP2050_booklet_en.pdf

30 https://www.info.gov.hk/gia/general/202110/08/P2021100800588.htm

Criteria and alignment

The Taxonomy currently covers three economic activities related to buildings, namely:

(a) Renovation of existing buildings (from Phase 1).

(b) Construction of new buildings (from Phase 1).

(c) Installation, maintenance, and repair of building equipment (added in Phase 2A).

Table 8: Construction Sector – Activity Classification

Activity		Green Activity	Transition Activity	Transition Measure
C-001	Renovation of existing buildings	✓		
C-002	Construction of new buildings	✓		
C-003	Installation, maintenance, and repair of building equipment	✓		

A central focus of the Taxonomy's criteria is the evaluation of a building's operational emissions. Ideally, data on energy consumption, such as energy intensity per square metre (covering electricity and gas), is made available for assessment. This information could be presented through metrics like Primary Energy Demand (PED) and Energy Use Intensity (EUI).

However, data availability poses challenges. In many cases, buildings with multiple tenants require owners or operators to obtain tenants' consent before sharing energy consumption data. Additionally, a centralised, open-access repository for disclosing a building's energy performance is not always available.

Against the above background, in addition to metrics on energy consumption, the Taxonomy allows for the use of building certification schemes as proxies to determine sustainability performance. Certification schemes can provide an established framework to assess whether a building meets energy performance requirements. There are a few options provided under the Taxonomy, as described below.

Eligible certification schemes

The following certification schemes for commercial and residential buildings developed by the Hong Kong Green Building Council are referenced in the Taxonomy:

(a) BEAM Plus New Building (NB) versions 1.2 and 2.0.

(b) Zero-Carbon-Ready Building Certification Scheme.

(c) Net Zero Energy Building Certification.

Aligned with the BEAM Plus framework, “commercial buildings” are defined as buildings intended for business, trade, or entertainment purposes, such as offices, clubhouses, and retail space.

While the Taxonomy incorporates Hong Kong’s home-grown certification schemes to support local market needs, it also includes selected frameworks that are widely used in other markets. This aims to establish Hong Kong as a hub for cross-border green and sustainable capital flows. To this end, the Taxonomy references certification schemes recognised in the Chinese Mainland, the European Union, and other commonly used certification schemes in the global market.

We recognise that jurisdictions may vary in their methods for assessing the environmental performance of buildings. Some certification systems address broader sustainability issues that may not directly relate to operational energy efficiency or greenhouse gas emissions. To ensure focus on climate change mitigation, the Taxonomy prioritises certification schemes that evaluate operational emissions and energy efficiency.

The criteria for the building sector will continue to evolve in the future phases of the Taxonomy. For example, we are considering the development of a decarbonisation pathway tailored to Hong Kong’s transition goals and local circumstances. This iterative approach ensures that the Taxonomy remains aligned with evolving sustainability standards and market demands.

Activity cards

C-001 Renovation of existing buildings

Sector	Construction
Activity Category	Construction and renovation of buildings
Activity Description	Renovation of existing buildings.
Associated ISIC Code(s)	4100, 4321, 4322, 4329, 4330, 4390
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	**A. Renovation of existing commercial buildings** The activity complies with one of the following criteria: (1) The building renovation leads to a reduction of primary energy demand, energy consumption, or operational GHG emissions of at least 30% against the building's historic average. (2) The building renovation enables the building to be at least eligible for the Extra Low in EUI or Level 2 improvement against a 2015 BEC baseline of the Zero-Carbon-Ready Building Certification. (3) The building renovation enables the building to be certified under the Net Zero Energy Building Certification. **B. Renovation of existing residential buildings** The activity complies with the following criteria: (1) The building renovation leads to a reduction of primary energy demand, energy consumption, or operational GHG emissions of at least 30% against the building's historic average. This is proven with measured and verified data.
Transition Activity	To be developed at a later phase.
Transition Measure	N/A.
Exclusion	Buildings that are dedicated to the extraction, storage, manufacturing, and transport of fossil fuels. **Note:** Buildings providing office space to fossil companies for administrative or trading activities are eligible.

C-002 Construction of new buildings

Sector	Construction
Activity Category	Construction and renovation of buildings
Activity Description	Construction of new buildings.
Associated ISIC Code(s)	4100, 4321, 4322, 4329, 4330, 4390
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The construction of new commercial and/or residential buildings must meet the criteria under one of the following certification schemes[31] (i.e. (1) to (6)) or one of the following jurisdictional requirements (i.e. (7) to (8))[32]: (1) Certified under BEAM Plus to meet all of the following criteria[33]: (a) Certified, or designed to be certified, at Gold or above. (b) Energy Use component must meet both criteria: (i) Achieved at least 10 credits under either: (a) EU2: Performance Path in BEAM Plus NB v2.0. (b) EU1: Reduction of CO_2 Emissions in BEAM Plus NB v1.2. (ii) Achieved a score of at least 70% in the Energy Use category. (c) Energy savings requirement must meet one of the following criteria: (i) For NB v1.2: At least 30% energy saving against a BEC 2018 baseline. (ii) For NB v2.0: At least 20% energy saving against a BEC 2021 baseline. (2) Certified at least Level 2 improvement against a BEC 2015 baseline in Energy Performance Certificate under the Zero-Carbon-Ready Building Certification. (3) Certified under the Net Zero Energy Building Certification. (4) Certified under Leadership in Energy and Environmental Design (LEED) v4.1 at Gold level and meet all of the following criteria: (a) Minimum score of 9 points under Energy Assessment Credits. (b) Optimise Energy Performance for 30% improvement above ASHRAE 90.1-2016 in energy performance. (5) Certified under NABERS Energy of at least five stars.[34]

31 Certification scheme (1) to (6): Projects may be certified in any jurisdiction, provided they meet the relevant Taxonomy criteria.

32 Jurisdictional requirement (7) to (8): Apply to specific jurisdictions. Taxonomy alignment is achieved provided the applicable jurisdictional requirements are met. There is no requirement to comply with any of the certification schemes in (1) to (6).

33 Recent updates to relevant standards, such as BEAM Plus New Building v2.0 (2025 edition) and BEC 2024, are under review and will be considered for inclusion in future phases of the Taxonomy.

34 To align with Australia's Commercial Building Disclosure Program, GreenPower cannot be used to meet the Taxonomy requirement on NABERS Energy.

Green Activity	(6) Certified under IFC EDGE must meet one of the following criteria: (a) Buildings in Least Developed Countries (as classified by the United Nations): any level of IFC EDGE certification. (b) Buildings in non-Least Developed Countries: IFC EDGE Advanced certification or above. (7) For projects in the Chinese Mainland: Rated under China Green Building Evaluation Label (Three Star System) at the third-level. (8) For projects in the European Union: Must meet all of the following criteria:[35] (a) Primary Energy Demand, defining the energy performance of the building resulting from the construction, is at least 10 % lower than the threshold set for the nearly-zero energy building (NZEB) requirements in national measures implementing Directive 2010/31/EU of the European Parliament and of the Council. The energy performance is certified using an as built Energy Performance Certificate. (b) For buildings larger than 5000 m^2, upon completion, the building resulting from the construction undergoes testing for air-tightness and thermal integrity, and any deviation in the levels of performance set at the design stage or defects in the building envelope are disclosed to investors and clients. As an alternative; where robust and traceable quality control processes are in place during the construction process this is acceptable as an alternative to thermal integrity testing. (i) The testing should be carried out in accordance with EN13187 (Thermal Performance of Buildings - Qualitative Detection of Thermal Irregularities in Building Envelopes - Infrared Method) and EN 13829 (Thermal performance of buildings - Determination of air permeability of buildings - Fan pressurisation method) or equivalent standards accepted by the respective building control body where the building is located. (c) For buildings larger than 5000 m^2, the life-cycle Global Warming Potential of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed to investors and clients on demand.
Transition Activity	To be developed at a later phase.
Transition Measure	N/A.
Exclusion	Buildings that are dedicated to the extraction, storage, manufacturing, and transport of fossil fuels. **Note:** Buildings providing office space to fossil companies for administrative or trading activities are eligible.

35 The criteria will be updated in line with future updates to the EU Taxonomy.

C-003 Installation, maintenance, and repair of building equipment

Sector	Construction
Activity Category	Construction and renovation of buildings
Activity Description	Installation, maintenance, upgrade, repair, and replacement of building equipment and fixtures aimed at helping the buildings achieve energy or resource savings.
Associated ISIC Code(s)	3312, 3530, 4329, 71XX*, 9522 * Includes all activities classified under the division denoted by the first two digits of the relevant ISIC code.
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with any of the following: **A. Energy efficient equipment** Eligible equipment falls within the two highest energy efficiency classes, as determined by relevant international labelling schemes or local regulations. If such schemes do not presently exist, equipment should minimally comply with minimum requirements within local building codes.[36] Eligible improvement items include: (1) Building envelope items including: (a) Thermal insulation materials, or construction materials with good insulation properties. (b) Green roofs or vertical green walls of suitable construction that helps to increase thermal insulation of building envelope. (c) Finishing materials (including paints and tiles) that resist solar heat gain and/or facilitate heat dissipation. (d) External shading devices, such as overhangs, awnings, and louvers. (e) Cavity walls, double-skin facades, or loft construction that reduce external heat gain. (f) Equipment to enhance air-tightness at entrances, such as automatic doors, revolving doors, and air curtains. (g) Energy efficient glazing, windows, and balcony doors that enhance air-tightness and reduce external heat gain. (h) Equipment to reduce the effects of thermal bridge. (2) Energy efficient lighting, such as light-emitting diode (LED). (3) Energy efficient heating, ventilation and air-conditioning (HVAC) equipment. Equipment related to district heating and cooling services are eligible.

36 In Hong Kong, relevant certifications include, but are not limited to, Grade 1 and Grade 2 equipment labelled under the Mandatory Energy Efficiency Labelling Scheme (MEELS) and the Voluntary Energy Efficiency Scheme (VEELS).

Green Activity	(4) Energy efficient pumping and motor equipment. (5) Energy efficient lifts and escalators. (6) Energy efficient electrical installations, such as those that reduce distribution loss, improve power quality, or power factor. (7) Energy efficient hot water equipment. (8) Other energy efficiency improvement items as certified by a qualified energy or environmental professional. **B. Renewable and low-carbon energy technologies** Eligible equipment includes: (1) Solar photovoltaic (PV) systems. (2) Solar hot water panels, including solar water heating systems with collectors. (3) Solar desiccant dehumidification. (4) Heat pumps for low-carbon heating or hot water production (refrigerant shall have a global warming potential of ≤675). (5) Ground source or water source heat pumps for heat rejection in a central air-conditioning system (refrigerant shall have a global warming potential of ≤675). (6) Wind turbines. (7) Solar transpired collectors. (8) High efficiency micro- combined-heat-and-power (CHP) plant. (9) Energy recovery systems. (10) Thermal or electric energy storage system that helps balance energy demand, making it useful for integrating renewable energy sources or reducing a building's peak load. (11) Other renewable or low-carbon technologies as certified by a qualified energy or environmental professional. **C. Instruments and devices for measuring, regulating, and controlling building energy performance** Eligible equipment includes: (1) HVAC control equipment, such as artificial intelligence (AI) chiller plant optimisation, zoned thermostats, smart thermostats, and smart air-conditioning controllers. (2) Lighting control equipment, such as motion and daylight sensors, and daylight autonomy system for window shading device control. (3) Building automation and control systems, building management systems (BMS), energy management systems (EMS), and cloud-based building analytics systems. (4) Smart meters for gas, heat, cool, and electricity. (5) Sub-meters (other than utility company's meters) that assist energy analysis and/or separate charging of resource use by tenants. (6) Other instruments or devices for measuring, regulating, and controlling building energy performance as certified by a qualified energy or environmental professional in the building industry. **D. Other equipment and fixtures** Eligible equipment and fixtures include: (1) Equipment and tools that can achieve energy or resource savings or reduce carbon emissions on construction sites, such as solar-powered lighting, battery energy storage system, and equipment that supports electrifying the construction site.

Green Activity	(2) Equipment and tools that can minimise waste and pollution, including air, noise, water, and light pollution on construction sites. The equipment and tools should be electrified and enable reduction in carbon emissions and/or improvements in energy efficiency. (3) Equipment and fixtures that can achieve water saving in buildings and reduce associated energy use (e.g. for water heating and pumping). (4) Equipment and fixtures that can recover waste in buildings and reduce embodied carbon emissions through material reuse/recycling. (5) Other building equipment and fixtures that can help buildings or construction sites achieve energy or resource savings, or reduce carbon emissions, as certified by a qualified energy or environmental professional in the building industry.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	Manufacturing of building equipment dedicated to the use of fossil fuels.



D. Waste

Overview

The waste sector accounted for approximately 8.5% of Hong Kong's carbon emissions in 2023,[37] the majority of which arose from greenhouse gases produced by the decomposition of waste in landfills. In response, the Government introduced the Waste Blueprint for Hong Kong 2035,[38] which promotes the vision of "Waste Reduction, Resources Circulation, Zero Landfill". The Blueprint sets out targets for reducing per capita municipal solid waste disposal by 40-45% and increasing recovery rates to about 55%. The overarching goal is to significantly reduce reliance on landfills.

37 https://cnsd.gov.hk/wp-content/uploads/2025/04/Data-Tables_2023_AR5_Sector-r2_clean.pdf

38 https://www.eeb.gov.hk/sites/default/files/pdf/waste_blueprint_2035_eng.pdf

Key Updates to the Taxonomy

To enhance focus, we have repositioned and renamed this section to concentrate specifically on waste-related activities. Accordingly, the Phase 2A Taxonomy covers three economic activities related to waste, which are carried forward from Phase 1. At present, only criteria for Green Activities are included. Future phases of the Taxonomy will explore potential updates to the Green criteria, the possible inclusion of relevant transition categories, and the addition of new waste-related activities.

In regards to activities related to water supply and treatment under the context of climate change mitigation, they will be considered in future Taxonomy phases under a separate, dedicated sector.

Table 9. Waste Sector – Activity Classification

Activity		Green Activity	Transition Activity	Transition Measure
D-001	Sewage sludge treatment – anaerobic digestion or co-digestion	✓		
D-002	Collection and transport of non-hazardous waste in source segregated fractions	✓		
D-003	Utilisation/ treatment of domestic waste – anaerobic digestion or co-digestion	✓		

Activity cards

D-001 Sewage sludge treatment – anaerobic digestion or co-digestion

Sector	Waste
Activity Category	Sewage sludge treatment
Activity Description	Construction and operation of facilities for the treatment of sewage sludge by anaerobic digestion or co-digestion with the resulting production and utilisation of biogas or chemicals.
Associated ISIC Code(s)	3700
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with all of the following criteria: (1) A monitoring and contingency plan is in place to minimise methane leakage at the facility. (2) The majority of the produced biogas is used directly for the generation of electricity or heat, or injection into the city gas network, or used as vehicle fuel or as fuel/feedstock in city gas production. In the unlikely event of equipment breakdown, unconsumed biogas will be safely flared.
Transition Activity	To be considered at a later phase.

Transition Measure	To be considered at a later phase.
Exclusion	N/A.

D-002 Collection and transport of non-hazardous waste in source segregated fractions

Sector	Waste
Activity Category	Waste collection, treatment and recycling
Activity Description	Separate collection and transport of non-hazardous waste in single or comingled fractions aimed at preparing for reuse or recycling.
Associated ISIC Code(s)	3811
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with the following criteria: (1) All separately collected and transported non-hazardous waste that is segregated at source is intended for preparation for reuse or recycling operations.
Transition Activity	To be considered at a later phase.
Transition Measure	To be considered at a later phase.
Exclusion	N/A.

D-003 Utilisation/ treatment of domestic waste – anaerobic digestion or co-digestion

Sector	Waste
Activity Category	Waste collection, treatment and recycling
Activity Description	Construction and operation of dedicated facilities for the treatment of separately collected bio-waste through anaerobic digestion or co-digestion with the resulting production and utilisation of biogas and digestate[39] and/or chemicals.
Associated ISIC Code(s)	3821
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with all of the following criteria: (1) A monitoring and contingency plan is in place to minimise methane leakage at the facility. (2) The majority of the produced biogas is used directly for the generation of electricity or heat, or injection into the city gas network, or used as vehicle fuel or as fuel/ feedstock in city gas production. In the unlikely event of equipment breakdown, unconsumed biogas will be safely flared. (3) The bio-waste that is used for anaerobic digestion or co-digestion is source segregated and collected separately. (4) The produced digestate is used as fertiliser or soil improver, either directly or after composting or any other treatment. (5) In the dedicated bio-waste treatment plants, the share of food and feed crops used as input feedstock, measured in weight, as an annual average, is less than or equal to 10% of the input feedstock.[40]
Transition Activity	To be considered at a later phase.
Transition Measure	To be considered at a later phase.
Exclusion	N/A.

39 Digestate is the nutrient-rich material remaining after anaerobic digestion or co-digestion, which can be repurposed as fertiliser.

40 This threshold references the EU Taxonomy.



E. Manufacturing

Overview

The manufacturing sector is a major contributor to carbon emissions in Asia, accounting for over 23% of the region's total carbon emissions in 2022.[41] In the Chinese Mainland, the sector ranks as the second-largest source of carbon emissions, contributing over 25% of the country's total carbon emissions in the same year.[42] This is reflective of the critical role that the sector plays in the Chinese Mainland's economy. From 2010 to 2025, the Chinese Mainland held the position as the world's largest manufacturing hub.[43] According to the International Energy Agency (IEA), in 2020, besides being the largest producer of hydrogen globally,[44] the Chinese Mainland also produced nearly 60% of the world's cement and crude steel, 55-65% of primary steel and aluminium, and 30% of the primary chemicals used in plastics and fertilisers.[45]

While Hong Kong has relocated the majority of its industrial operations to the Chinese Mainland and other parts of Asia, the Hong Kong Taxonomy aims to support the transition of the manufacturing sector by directing and scaling up cross-border capital flows towards green and sustainable opportunities in the region and beyond. Indeed, the Chinese Mainland has set out ambitious plans to decarbonise its economy, specifically naming "limiting the consumption of fossil fuels" and "promoting green manufacturing" as key areas of focus in the 14th Five Year Plan (2021–2025).[46]

41 https://www.iea.org/regions/asia-pacific/emissions
42 https://www.iea.org/countries/china/emissions
43 https://english.www.gov.cN/A.rchive/statistics/202507/09/content_WS686e064dc6d0868f4e8f3fe1.html
44 https://www.iea.org/reports/opportunities-for-hydrogen-production-with-ccus-in-china/executive-summary
45 https://iea.blob.core.windows.net/assets/bcf51d31-b7c6-4183-944f-707d05021356/AnenergysectorroadmaptocarbonneutralityinChina.pdf
46 https://iea.blob.core.windows.net/assets/bcf51d31-b7c6-4183-944f-707d05021356/AnenergysectorroadmaptocarbonneutralityinChina.pdf

General methodological approach

Under the Hong Kong Taxonomy, there are two classifications for manufacturing activities, namely hard-to-abate activities, and enabling activities. Specific details for individual economic activities are further elaborated in the respective sub-sections and activity cards.

Hard-to-abate activities

Hard-to-abate activities are those essential to the economy in the long term but pose challenges in reducing emissions due to the nature of their production processes. A gradual and progressive decarbonisation approach is required. Examples include the production of hydrogen, aluminium, cement, and iron and steel.



For each activity, a decarbonisation trajectory with emissions thresholds for different time intervals and ultimately reaching net zero in 2050 is developed. Typically, the trajectory references thresholds in global frameworks (e.g. the EU Taxonomy) as a starting point in a given base year. Then, to determine emissions thresholds at different time intervals leading up to 2050, 1.5°C-aligned decarbonisation pathways or frameworks developed by industry experts or academia are used as references for projection. The pathways or frameworks referenced are credible, science-based, and have undergone rigorous development processes.

This forward-looking approach is intended to provide clear thresholds, offering users greater certainty about the level of decarbonisation required over time to achieve net zero.



The transition of hard-to-abate activities is often hindered by the absence of technologically and economically viable low-carbon alternatives. Moreover, emission levels for a given activity can vary widely between facilities due to wide-ranging factors such as the types of production technology adopted, types of fuel and feedstock used, as well as the ownership structure and level of vertical integration of individual processes. This variability makes it challenging to gather standardised and reliable data for credibly defining the lower emissions boundary for the transition category.

The Hong Kong Taxonomy, with a focus on supporting the transition of industries in the Chinese Mainland and the region, has taken steps to develop transition thresholds that are robust while compatible with local circumstances. This is done by referencing relevant local standards, while benchmarking against global frameworks to ensure alignment and credibility. This dual approach aims to balance regional relevance with international best practices.

In future phases, as technologies mature and new innovations emerge, the transition pathways and thresholds outlined in the current Taxonomy may be revisited to reflect the latest advancements in technology and shifts in market dynamics.



Specific measures (e.g. technologies, processes, materials) that can significantly reduce the emission intensity of manufacturing processes and are widely applicable across different manufacturing facilities with different starting emissions levels are identified. These measures are not intended to be one-off initiatives but should be strategically implemented to facilitate the long-term transition of manufacturing activities towards greener and more sustainable practices. Examples include adopting energy-efficient technologies, integrating renewable energy sources, and optimising resource utilisation.

Enabling activities

These activities are dedicated to the manufacture of net zero aligned products and technologies essential for a low-carbon future. As these activities involve the production of new assets with long lifespans, only **Green Activity,** which is 1.5°C- aligned, is included to prevent carbon lock-in from inefficient and highly emissive assets. An example is the manufacture of equipment for the production of hydrogen through electrolysis.

Table 10. Manufacturing Sector – Activity Classification

Activity		Green Activity	Transition Activity	Transition Measure
E-001	Manufacture of hydrogen	✓	✓	✓
E-002	Manufacture of equipment for the production of hydrogen through electrolysis	✓		
E-003	Manufacture of aluminium: alumina refining	✓		✓
E-004	Manufacture of aluminium: aluminium smelting	✓	✓	✓

Future iterations of the Taxonomy will consider expanding the scope to cover economic activities that play a crucial role in the manufacturing sector of the Chinese Mainland and the region and are vital for the decarbonisation of the economy. This includes industries such as the production of cement, iron and steel, and basic chemicals, among others.

Manufacture of Hydrogen

Description and scope

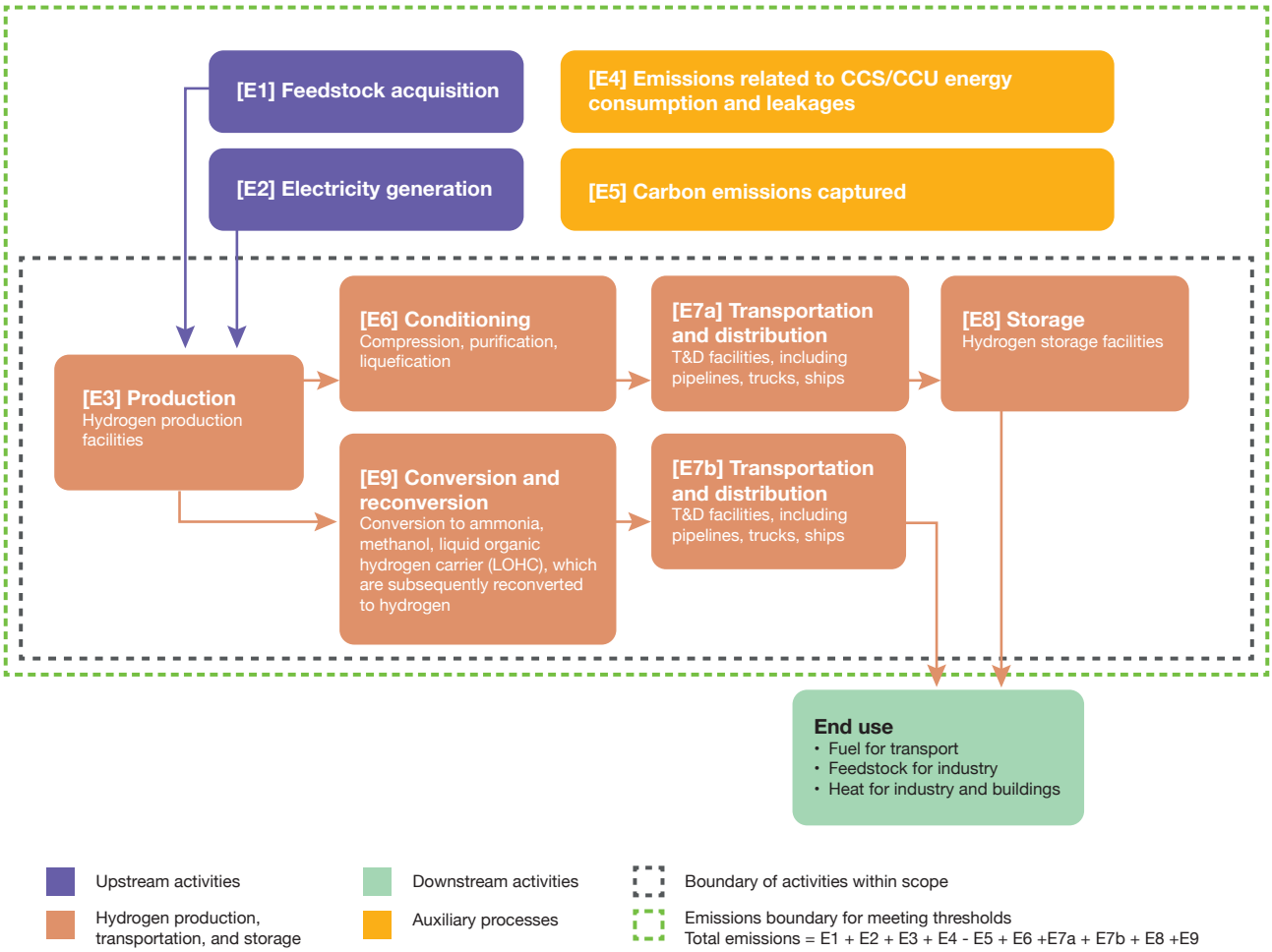
Activity boundary

The activity focuses on hydrogen as the product in scope. It covers hydrogen production, conditioning, conversion, reconversion, transportation, distribution, and storage, as depicted in Figure 3.

Emissions boundary

The emissions boundary follows a "cradle-to-site" lifecycle methodology, as depicted in Figure 3. The emissions boundary references mainstream taxonomies, relevant international and national standards, as well as the Hong Kong Government's upcoming hydrogen standard certification,[47] all of which inform the development of criteria and thresholds for this activity. Detailed guidance for conducting lifecycle emissions assessment can be found at Annex I.

Figure 3. Activity boundary and emissions boundary for hydrogen production



47 Exact certification name will be announced by the Hong Kong Government in due course.

Criteria and thresholds

The criteria and thresholds for Green and Transition Activity focus on carbon emissions intensity rather than traditional colour-based classifications of hydrogen (for example, green, blue, grey, yellow, or pink hydrogen).[48] This is due to the general lack of consensus and scientifically verifiable distinctions for colour-based classifications.

Green Activity

The carbon emission thresholds are aligned with a 1.5°C decarbonisation pathway.

To reflect the development of the hydrogen production sector in Hong Kong, the Chinese Mainland and the surrounding region, the 2025 emissions threshold aligns with the Hong Kong Government's upcoming hydrogen standard certification for "green hydrogen".[49]

As for the thresholds in the years after 2025 leading up to 2050, the benchmarks from the Hydrogen Council report[50] are first referenced, which were further validated using the Massachusetts Institute of Technology (MIT) Energy Initiative's SESAME platform. While there are various hydrogen production pathways available based on energy sources, conversion technologies and transportation methods, the above methodology provides pathway-agnostic benchmarks for calculating carbon emissions intensity across years.

Transition Activity

A single threshold, valid until the 2035 sunset date, is developed. With a view to supporting the industry's transition while considering the circumstances of Hong Kong, the Chinese Mainland and the surrounding region, this threshold is aligned with the Hong Kong Government's upcoming hydrogen standard certification for "low-carbon hydrogen".

To enable a transition towards green solutions, only electrolysis technologies, which offer the highest decarbonisation potential is eligible. However, the use of renewable energy for electrolysis is not mandatory – in other words, electricity can be sourced from the grid as long as the criteria are met.

Looking ahead, the relevant criteria under Green and Transition Activity may be reviewed and updated to cater for evolving industry circumstances and to align with any updates to the standards and thresholds under the Hong Kong Government's hydrogen standard certification.

Transition Measure

Transition Measures focus on three categories: (1) Feedstock substitution; (2) Electrification and use of renewable and low-carbon energy; and (3) CCS/CCU deployment. Examples include using biogas or landfill gas for reforming, using renewable energy for electrolytic production, and installing carbon capture infrastructure.

Transition Measures will remain eligible until the 2035 sunset date.

48 Hydrogen is classified by colours to indicate its production method and associated carbon intensity, although there are no globally agreed thresholds for each hydrogen colour. For example, grey hydrogen is produced from fossil fuels without carbon capture.

49 The Hong Kong Government's upcoming hydrogen standard certification is being developed by the Electrical and Mechanical Services Department (EMSD) based on the alignment with the local hydrogen market conditions, referencing EU Renewable Energy Directive III ("RED III") requirements and standards of the Chinese Mainland to strive for EU's and Greater Bay Area's recognition and alignment with Hong Kong's long-term carbon reduction goals.

50 https://hydrogencouncil.com/wp-content/uploads/2021/01/Hydrogen-Council-Report_Decarbonization-Pathways_Part-1-Lifecycle-Assessment.pdf

Activity card

E-001 Manufacture of hydrogen

Sector	Manufacturing
Activity Category	Hydrogen production
Activity Description	Manufacture of hydrogen
Associated ISIC Code(s)	2011
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with all of the following: **A. Emissions intensity** (1) Emissions intensity does not exceed the thresholds in Table 11, based on a lifecycle assessment (methodological notes detailed at Annex I). *Table 11. Green emissions thresholds for hydrogen production ($kgCO_2e/kg\ H_2$)*

Year	2025	2030	2040	2050
Threshold	3.384	1.5	0.6	0

B. Feedstock

If the specific feedstock is used, the relevant criteria apply:

(1) **Fossil gas**[51]**:** Monitoring, Reporting and Verification (MRV) and mitigation measures are undertaken for methane leaks on site and upstream.

(2) **Biogas**:

(a) Biomass is derived from existing supply chains and does not require dedicated production out of arable land.

(b) Only waste and residues are eligible. Wood and other dedicated crops are not eligible.

(c) MRV and mitigation measures are undertaken for methane leakages on site and upstream.

(3) **Landfill gas:**

(a) Landfill cell where gas is captured is permanently closed and will not receive waste.

(b) MRV and mitigation measures are undertaken for methane leakages on site and upstream.

C. Electricity source

If the specific electricity source is used, the relevant criteria apply:

(1) **Renewable electricity:** The use of only additional renewable electricity is demonstrated[52] – i.e. the renewable electricity used must come from new and additional sources and should not be diverted from existing uses.

51 Note: As a best practice, the use of fossil gas as a feedstock by facilities following 2030 is not recommended. It is not a criteria for the current Taxonomy, but may be further re-evaluated in future iterations.

52 Additional renewable electricity can be demonstrated through the following options: (i) renewable-based captive power generation, (ii) a power purchase agreement demonstrating a commercial link of the electrolyser with new renewable power capacity, or (iii) excess of renewable-based electricity that would have been otherwise curtailed.

Green Activity	**D. CCS/CCU deployment** (1) If CCS/CCU equipment is used on site, the captured CO_2 is suitably transported, stored, and/or utilised in line with their respective activity criteria (to be developed at a later phase). When the upcoming Hong Kong hydrogen standard certification is made publicly available, the "taxonomy aligned" label under the certification (which is based on Taxonomy requirements) will be further assessed as a suitable proxy for Taxonomy-alignment.
Transition Activity	The activity uses electrolysis technologies and complies with all of the following: **A. Emissions intensity** (1) Emissions intensity is not more than 4.86 $kgCO_2e/kg\ H_2$, based on a lifecycle assessment (methodological notes at Annex I). **B. Electricity source** (1) If renewable energy is used, complies with criteria (C) on Electricity source under Green Activity.[53] **C. CCS/CCU deployment** (1) If CCS/CCU equipment is used on site, the captured CO_2 is suitably transported, stored, and/or utilised in line with their respective activity criteria (to be developed at a later phase). The Transition Activity will sunset in 2035.
Transition Measure	The measure complies with one of the following and is implemented before the sunset date of 2035: **A. Feedstock substitution** (1) Refurbishment and retrofitting of facilities to use biogas or landfill gas. (2) Acquisition of equipment to produce hydrogen from biogas or landfill gas. Measures A(1) and A(2) must comply with criteria B(2) of Feedstock – Biogas or B(3) of Feedstock – Landfill gas under Green Activity. **B. Electrification and use of renewable and low-carbon energy** (1) Revamps, modifications, and acquisition of equipment and other infrastructure necessary for electrification. (2) Refurbishment and retrofitting of facilities to use renewable and low-carbon energy that meets the Green Activity criteria under the Energy sector (refer to Section A). (3) Acquisition of equipment to produce electrolytic hydrogen using renewable and low-carbon energy that meets the Green Activity criteria under the Energy sector (refer to Section A). **C. CCS/CCU deployment** (1) Installation, upgrade, and operation of CCS/CCU infrastructure that meet their respective activity criteria (to be developed at a later phase).
Exclusion	Facilities or measures supporting facilities which: • The dedicated energy source are oil, coal or coal derivatives, and biomass from primary sources.[54] • The feedstock is coal or coal derivatives.

53 The use of renewable energy for electrolysis is not mandatory – in other words, electricity can be sourced from the grid as long as the criteria are met.

54 Only waste biomass sources are considered eligible.

Manufacture of equipment for the production of hydrogen through electrolysis

Criteria and thresholds

Given its role in promoting low-carbon hydrogen, the manufacture of equipment for hydrogen production through electrolysis is automatically eligible under Green Activity.

Activity card

E-002 Manufacture of equipment for the production of hydrogen through electrolysis

Sector	Manufacturing
Activity Category	Manufacture of special-purpose machinery
Activity Description	Manufacture of equipment for the production of hydrogen
Associated ISIC Code(s)	2511, 2599, 2790, 2829
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity is automatically eligible if it complies with activity description.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

Annex I. Methodological notes for conducting lifecycle emissions assessments of hydrogen production

1. The life cycle assessment should follow the latest version of ISO standards[55] (ISO 14040, ISO 14044 for life-cycle assessment, ISO 14067 for product carbon footprint, or ISO 19870 for emissions by hydrogen technologies). Results should be verified by an independent third party.

2. GHG emissions must be estimated for a hydrogen purity of 99.9% vol, and a gauge pressure of at least 3 MPa.

3. The methodology factor in a Global Warming Potential for a period of 100 years (GWP_{100}) for methane should be 30.[56]

4. GHG emissions accounting:

$$\textbf{E total} = E1 + E2 + E3 + E4 - E5 + E6 + E7 + E8 + E9$$

E total: Total emissions

E1: Upstream feedstock-related emissions (This includes sourcing,[57] processing, transport, and storage. Methane leakages must be included through MRV measurements[58] where possible, or with estimations for new projects).

E2: Upstream energy-related emissions (including sourcing, processing, transport, and storage).

E3: Process direct emissions.

E4: Emissions related to CCS energy consumption and leakages.

E5: Carbon emissions captured.

E6: Conditioning emissions (energy required to compress and purify hydrogen).

E7[59]: Transportation emissions to the site where hydrogen will be used or stored (energy and electricity-related emissions and fugitive emissions during transportation).[60] If the producer is responsible for transportation, it must use primary data. If transportation is done by another party, it can use secondary data from the transporter or use estimations.

E8: Storage of hydrogen.

E9: Conversion and reconversion of hydrogen.

55 ISO 14040:2006 Environmental Management — Life Cycle Assessment — Principles and Framework: https://www.iso.org/standard/37456.html;
ISO 14044:2006 Environmental Management — Life Cycle Assessment — Requirements and Guidelines: https://www.iso.org/standard/38498.html;
ISO14067:2018 Greenhouse Gases — Carbon Footprint of Products — Requirements and Guidelines for Quantification: https://www.iso.org/standard/71206.html
ISO/TS19870:2023 Hydrogen technologies — Methodology for determining the greenhouse gas emissions associated with the production, conditioning and transport of hydrogen to consumption gate

56 Sixth Assessment Report – IPCC.

57 Depending on the feedstock, it can be extraction, cultivation, or collection.

58 Guidance for MRV is provided by the United Nations Economic Commission for Europe in its report on Best Practice Guidance for Effective Management in the Oil and Gas Sector. https://unece.org/fileadmin/DAM/energy/images/CMM/CMM_CE/Best_Practice_Guidance_for_Effective_Methane_Management_in_the_Oil_and_Gas_Sector__Monitoring__Reporting_and_Verification__MRV__and_Mitigation-_FINAL__with_covers_.pdf.

59 E7 covers E7a and E7b.

60 Transportation infrastructure emissions, such as the construction of pipelines or ships are not included.

Manufacture of Aluminium

Description and scope

This activity covers the manufacture of **primary aluminium**, which encompasses two main processes, namely alumina refining and aluminium smelting. Each process is defined by its respective activity boundary and emissions boundary, as detailed below and illustrated in Figure 4:

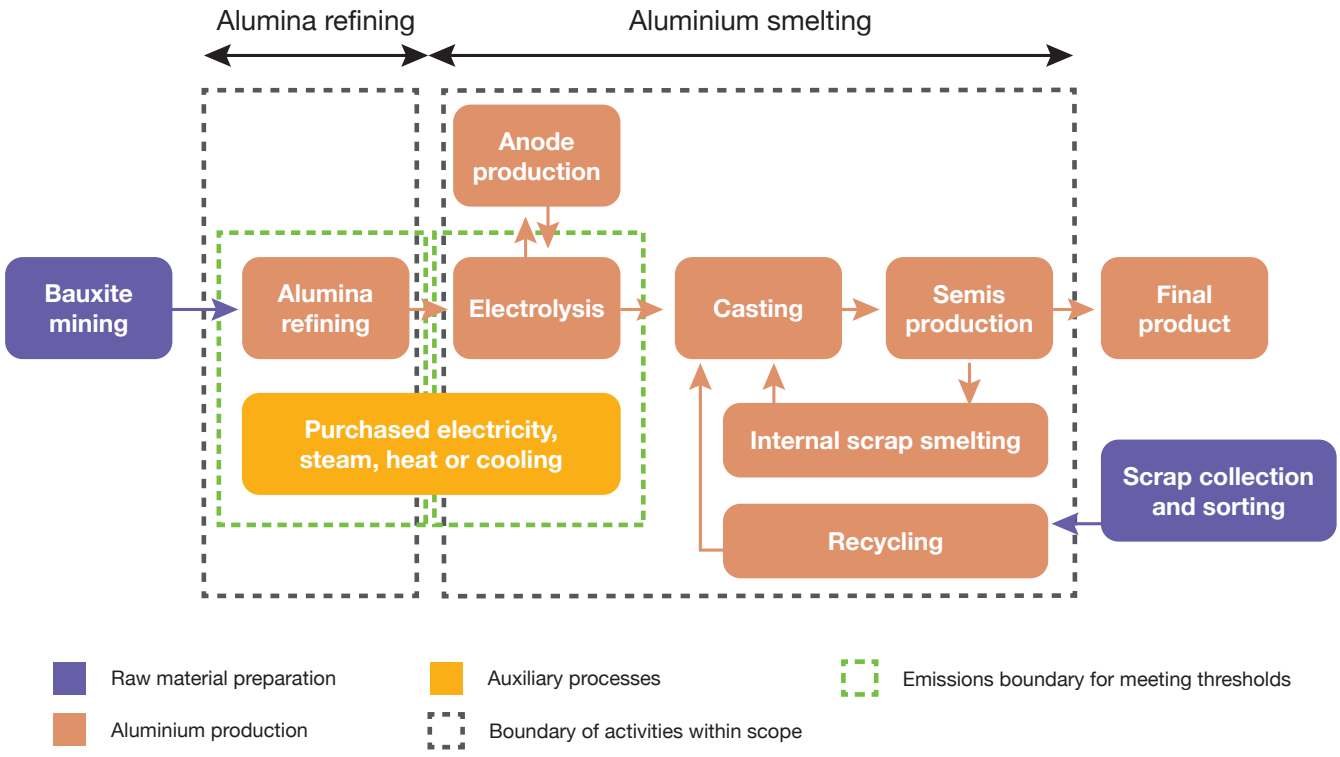
Alumina refining

- Activity boundary: The refining of raw bauxite into alumina.
- Emission boundary: All direct and indirect emissions relating to alumina refining.

Aluminium smelting

- Activity boundary: The process of extracting aluminium from alumina through electrolysis and subsequent processes to produce aluminium.
- Emission boundary: All direct and indirect emissions relating to electrolysis.

Figure 4. Activity boundary and emissions boundary for alumina refining and aluminium smelting



The production of **secondary aluminium**, which involves the recycling of aluminium scrap, is also within the activity scope.

Criteria and Thresholds

This section focuses on detailed criteria developed for the manufacture of primary aluminium, which makes up the majority of the sectoral emissions. On the other hand, secondary aluminium production does not include the same emission intensive processes and can be considered automatically eligible under Green Activity.

Green Activity

The thresholds for emissions are developed with reference to a 1.5°C-aligned decarbonisation pathway for manufacture of primary aluminium, as outlined by the International Aluminium Institute (IAI).[61] The decarbonisation pathway is based on an overall emissions budget, which are further allocated to the individual processes of alumina refining and electrolysis (for production of primary aluminium).

- **Alumina refining:** Emissions intensity thresholds are derived directly based on the IAI's emissions budgeting for the refining process and projections for primary aluminium demand.

- **Aluminium smelting (through electrolysis):** The EU Taxonomy threshold of 1.484 tCO_2e per ton of aluminium (tCO_2e/t Al)[62] serves as the baseline. Percentage reductions are applied for various time periods, guided by the reduction targets specified in the IAI decarbonisation pathway.

Transition Activity

- **Alumina refining:** There is no Transition Activity for alumina refining, in view that relevant technologies are deemed advanced enough to align with Green Activity.

- **Aluminium smelting (through electrolysis):** Within the electrolysis process, electricity consumption is the primary source of emissions, contributing over 76% of total emissions by electrolysis on a global level in 2023.[63] In light of this, the emissions thresholds under Transition Activity are designed to consider two factors: (1) electricity consumption and (2) the carbon intensity of the electricity used.

In view that the Chinese Mainland is the largest producer of aluminium globally (over 58% of the world's output in 2022),[64] its transition is a key consideration in developing transition thresholds and reference has been made to relevant electricity efficiency benchmarks related to aluminium electrolysis technologies. As regards the carbon intensity of electricity used, thresholds draw reference from the transition category of the Energy sector in the Hong Kong Taxonomy (see Section A).

Transition Activity for aluminium smelting will remain eligible until the 2035 sunset date, in line with the Energy sector.

61 https://international-aluminium.org/resources/aluminium-sector-greenhouse-gas-pathways-to-2050-2021/

62 This reflects the average value of the 10% most efficient installations in 2016 and 2017, as set out in the Annex to the Implementing Regulation (EU) 2021/447.

63 https://international-aluminium.org/statistics/greenhouse-gas-emissions-aluminium-sector/

64 https://international-aluminium.org/resources/development-of-the-aluminum-industry-and-technology-in-china/

Transition Measure

Transition Measures are specifically designed to support the decarbonisation of individual processes across the entire aluminium production chain (i.e. alumina refining and aluminium smelting). In view that electricity generation accounts for the majority of emissions across the production chain (over 58%), decarbonised power generation provides the most significant opportunity for reducing emissions.

In drawing up the Transition Measures, the industry practices in the Chinese Mainland and the region have been considered.

Transition Measures will remain eligible until the 2040 sunset date. This extended sunset date takes into account the need for abatement technologies to develop and mature, as well as the longer lead time required for industries in the Chinese Mainland and the broader region to transition effectively.

Activity cards

E-003 Manufacture of Aluminium: Alumina refining

Sector	Manufacturing
Activity Category	Alumina production
Activity Description	Refining of bauxite to produce alumina.
Associated ISIC Code(s)	2420
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with the following criteria: (1) Emissions intensity does not exceed the thresholds in Table 12. *Table 12. Green emissions thresholds for alumina production (in tCO_2e/ t Al)*

2025	2030	2040	2050
2.31	2.07	0.89	0.19

Transition Activity	N/A.
Transition Measure	The measure complies with one of the following and is implemented before the sunset date of 2040: (1) Fuel switching from fossil to non-fossil alternatives that meet the Green Activity criteria under the Energy sector (refer to Section A). (2) Sourcing or purchasing of renewable and low-carbon energy that meet the Green Activity criteria under the Energy sector (refer to Section A). (3) Non-grid connection to renewable and low-carbon energy that meet the Green Activity criteria under the Energy sector (refer to Section A). (4) Construction or installation of renewable and low-carbon energy captive plants that meet the Green Activity criteria under the Energy sector (refer to Section A).

Transition Measure	(5) Process upgrades to reduce emissions by >15%, compared to the facility's baseline status before the implementation of upgrades. (6) Electric digestion for alumina refining, such as electric boilers or mechanical vapour recompression. (7) Electric or hydrogen calcination. (a) If hydrogen is used, it meets the Green Activity criteria for hydrogen production under the Manufacturing sector (refer to Section E) (8) Boiler conversion for hydrogen or biomass substitution. (a) If hydrogen is used, it meets the Green Activity criteria for hydrogen production under the Manufacturing sector (refer to Section E) (b) If biomass is used, the raw material is derived from existing supply chains and does not require dedicated production on arable land. Only waste and residues are eligible, while wood and other dedicated crops are not eligible. (9) Heat recovery systems. (10) Research and development dedicated to the substantial reduction, avoidance, or removal of greenhouse gas emissions from alumina production. (11) Research and development related to capturing carbon from alumina refining steam generation or calcination processes.
Exclusion	N/A.

E-004 Manufacture of aluminium: Aluminium smelting

Sector	Manufacturing
Activity Category	Aluminium smelting
Activity Description	Smelting of alumina to produce primary aluminium, and production of secondary aluminium from scrap.
Associated ISIC Code(s)	2420, 2432
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	**Primary aluminium** The activity complies with criteria (1) and (2), or (1) and (3): (1) Emissions intensity does not exceed the thresholds in Table 13. (2) The average carbon intensity for indirect Scope 2 emissions does not exceed 100g CO_2e/kWh. (3) The electricity consumption for the manufacturing process does not exceed 15.5 MWh/t Al. Table 13. Green emissions thresholds for aluminium smelting through electrolysis (in tCO2e/ t Al)

2025	2030	2040	2050
1.484	1.185	0.520	0.311

<table>
<tr><td>Green Activity</td><td>Secondary aluminium
The activity is automatically eligible if it complies with activity description.</td></tr>
<tr><td>Transition Activity</td><td>The activity complies with the following criteria:
(1) Emissions intensity does not exceed the thresholds in Table 14.
Table 14. Transition emissions thresholds for aluminium smelting through electrolysis (in tCO_2e/ t Al)
<table>
<tr><th>2030</th><th>2035</th></tr>
<tr><td>3.392</td><td>1.929</td></tr>
</table>
The Transition Activity will sunset in 2035.</td></tr>
<tr><td>Transition Measure</td><td>The measure complies with one of the following and is implemented before the sunset date of 2040:
(1) Fuel switching from fossil to non-fossil alternatives that meet the Green Activity criteria under the Energy sector (refer to Section A).
(2) Increase share of renewable and low-carbon energy and electricity that meet the Green Activity criteria under the Energy sector (refer to Section A).
(3) Non-grid connection to renewable and low-carbon energy that meet the Green Activity criteria under the Energy sector (refer to Section A).
(4) Projects to reduce perfluorocarbon (PFC) emissions.
(5) Use of inert anodes in the smelting process.
(6) New electrolytic cell design or retrofits to electrolytic cells that optimise energy efficiency, including:
(a) Adoption of stable-flow and heat-insulated electrolytic cells.
(b) Scaling up of electrolytic cells.
(c) Intelligent and digital control.
(d) Energy flow optimisation.
(e) Waste heat recovery.
(7) Research and development dedicated to the reduction, avoidance, or removal of greenhouse gas emissions from aluminium production.
(8) Research and development related to capturing carbon from aluminium smelter flue gas.</td></tr>
<tr><td>Exclusion</td><td>N/A.</td></tr>
</table>



F. Information and Communications Technology (ICT)

Overview

The Information and Communications Technology (ICT) sector is a cross-cutting industry where technologies and services drive sustainability improvements across various economic sectors. Globally, the data centre industry is expanding rapidly, with new data centre capacity expected to grow by approximately 15% annually over the next few years to meet soaring demand for cloud services, AI workloads, and digital infrastructure.[65] The energy use is also projected to double by 2026, driven in part by the rising demand from emerging technologies such as generative AI, which alone could increase data centre power demand by 160%.[66] This trend underscores the urgent need to enhance energy efficiency and adopt sustainable practices within the sector.

Reflecting this global trend, Hong Kong serves as an important data centre hub, hosting over 60 facilities that consumed 5% of the commercial sector's total energy used in 2020.[67,68] To further drive innovation and technological advancement, Hong Kong has developed its first AI supercomputer centre, reinforcing its commitment to becoming a high-performance, data-driven economy.[69] The expansion into AI supercomputing, alongside the rapid growth in energy demand from data centres, is expected to continue, highlighting the critical need for enhanced energy efficiency and sustainable practices within the sector.

65 https://www.jll.com.hk/en/trends-and-insights/research/data-center-outlook

66 https://www.weforum.org/stories/2025/01/6-ways-data-centres-can-cut-emissions/

67 https://app7.legco.gov.hk/rpdb/en/uploads/2023/ISSH/ISSH07_2023_20230525_en.pdf

68 https://www.emsd.gov.hk/filemanager/en/content_762/HKEEUD2022.pdf

69 https://www.cyberport.hk/wp-content/uploads/Press-Release-Cyberport-Artificial-Intelligence-Supercomputing-Centre-Officially-Commences-Operations.pdf#:~:text=Hong%20Kong%2C%209%20December%202024%20%E2%80%93%20Cyberport's,the%20AI%20Lab%20is%20also%20open%20concurrently.&text=The%20AI%20Lab%20launched%20today%20brings%20together,showcase%20AI%20solutions%20and%20launch%20service%20products.

Against this background, the Hong Kong Taxonomy covers two key activities under the ICT sector:
(1) Data processing, hosting and related activities.
(2) Data-driven solutions for greenhouse gas emissions reductions.

Table 15: ICT Sector – Activity Classification

Activity		Green Activity	Transition Activity	Transition Measure
F-001	Data processing, hosting and related activities	✓	✓	
F-002	Data-driven solutions for greenhouse gas emissions reductions	✓		

Data processing, hosting and related activities

Metrics

Data centres refer to the physical infrastructures and facilities used to house, connect, and operate computer systems, servers, telecommunications equipment, and associated support components in a secure and controlled environment for providing data storage, processing, and network services. The most commonly used metrics for data centres are as follows:

Power Usage Effectiveness (PUE)

The PUE is the global industry metric for measuring the energy efficiency of data centres. It measures the ratio of the annual energy used by the data centre and its IT equipment. The formula for calculating PUE is as follows:

$$\text{PUE} = \frac{\textit{Annual amount of energy used by the data centre (in kWh or MWh)}}{\textit{Annual amount of energy used by the IT equipment (in kWh or MWh)}}$$

The PUE changes based on the IT load, which reflects how much the servers are being utilised at any given time. Since IT equipment rarely operates at full capacity continuously, the varying server workloads directly impacts PUE value. To accurately reflect energy efficiency across different operating conditions, specific PUE thresholds are established for different levels of IT load.

Water Usage Effectiveness (WUE)

The WUE is a key metric for addressing water usage in data centres. It measures the ratio of the annual water consumption by the data centre and the energy consumption of the IT equipment. The formula for calculating WUE is as follows:

$$\text{WUE} = \frac{\textit{Annual water consumption by the data centre (in litres or } m^3\textit{)}}{\textit{Annual amount of energy used by the IT equipment (in kWh)}}$$

The WUE helps data centre operators monitor and optimise water use, particularly for cooling and humidification systems, which are among the largest water-consuming processes in data centres. Similar to how PUE varies with IT load, WUE can also vary depending on operational conditions and cooling demands.

Global Warming Potential (GWP)

The GWP of refrigerants is a key metric for measuring the amount of heat a greenhouse gas traps in the atmosphere over a given time compared to carbon dioxide. The Taxonomy sets a GWP cap of 675, aiming to reduce reliance on hydrofluorocarbon (HFC) refrigerants, which typically have GWP values thousands of times higher than carbon dioxide. This threshold aligns with international standards such as the EU Taxonomy.

Criteria and Thresholds



To qualify as a Green Activity under the Taxonomy for data centres, three criteria must be met:

- Energy usage: The data centre should demonstrate high energy efficiency by achieving PUE levels appropriate to its IT load, or by being fully powered by renewable or low-carbon energy sources. This ensures that energy consumption is optimally managed relative to the data centre's operational demands, while the use of renewable or low-carbon energy reduces carbon emissions. The PUE thresholds are aligned with BEAM Plus New Data Centres Version 1.0 (NDC V1.0).

- Water usage: The data centre must implement effective water management practices, such as using advanced water treatment systems to reduce freshwater consumption in cooling towers. Alternatively, it should maintain WUE within established efficiency thresholds.

- GWP: The refrigerants used must have a low global warming potential, complying with either specified limits or applicable local environmental regulations, whichever is lower (i.e. more stringent).

For new data centre construction, the building must also comply with the Taxonomy's green criteria for construction of new commercial buildings.



Transition Activity will remain eligible until the 2035 sunset date, and is only applicable to retrofits and operations of existing data centres.

Similar to the Green Activity, it assesses data centres based on their PUE, water usage and GWP, with defined thresholds for each.

Data-driven solutions for greenhouse gas emissions reductions

Criteria and Thresholds

ICT solutions, including hardware and software, that contribute to reducing the emissions profiles of other activities are eligible. These solutions must demonstrate performance on par with leading technologies and undergo assessment using recognised standards, with independent verification. Alternatively, ICT solutions should improve the emissions profiles of other IT products and processes through improving energy efficiency, reducing emissions, and maximising product use.

Activity cards

F-001 Data processing, hosting and related activities

Sector	Information and communications technology (ICT)
Activity Category	Information services
Activity Description	Construction, operation, or retrofitting of data centres. Data centres include data centre buildings, ICT equipment and services, servers, cooling, data centre power equipment, data centre power distribution equipment, and monitoring systems.
Associated ISIC Code(s)	6311
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with criteria A, B and C; and must also comply with criteria D if it involves the construction of a new data centre building. **A. Energy usage** Complies with one of the following criteria: (1) Data centre meets the PUE value of the IT load in Table 16. (2) Data centre is powered by 100% renewable (including solar, wind power) or low-carbon energy (including nuclear power) with ≤100gCO_2e/kWh lifecycle emissions, or a combination of these sources. *Table 16. Green PUE value required at different IT loads* IT load: 100% — Required PUE[70]: ≤1.35 IT load: 75% — Required PUE[70]: ≤1.40 IT load: 50% — Required PUE[70]: ≤1.45 IT load: 25% — Required PUE[70]: ≤1.50 **Note:** The PUE thresholds should be interpolated linearly for different IT loads. For example, the corresponding PUE threshold for a 65% IT load is 1.42. **B. Water usage** If only air cooling is used, the activity is exempt from meeting the water usage criteria. In all other cases, it must comply with one of the following criteria: (1) Water treatment systems with 8 or more cycles of concentration with acceptable water quality to reduce freshwater consumption in cooling tower makeup.[71] (2) Water usage effectiveness (WUE) of the data centre is no more than 2.0 L/kWh. **C. Global warming potential (GWP)** Complies with the following criteria: (1) The GWP of refrigerants used in the data centre cooling system must not exceed 675, or meet applicable local standards and regulations, whichever is lower.

70 PUE values are based on industry best practices. For 75% IT load, the PUE value also corresponds to the most stringent requirement under BEAM Plus New Data Centres v1.0, EU-01-02.

71 Corresponds to BEAM Plus NDC v1.0, WU-01-06 requirement.

Green Activity

D. Construction of new data centre building

For projects that include construction of a new data centre building, the building complies with the following criteria:

(1) Aligns with the green criteria under "Construction of new commercial buildings" from the present Taxonomy (refer to Section C).

Transition Activity

The Transition Activity applies only to retrofitting and operation of existing data centres.

The activity complies with criteria A, B and C.

A. Energy usage

Complies with all of the following criteria:

(1) Data centre meets the PUE value of IT load in Table 17.

(2) A commitment to align with Green Activity criteria for the PUE value in Table 16 by 2035.

Table 17. Transition PUE value required at different IT loads

IT load	Required PUE
100%	≤1.40
75%	≤1.45
50%	≤1.50
25%	≤1.55

Note:
The PUE thresholds should be interpolated linearly for different IT loads. For example, the corresponding PUE threshold for a 65% IT load is 1.47.

B. Water usage

If only air cooling is used, the activity is exempt from meeting the water usage criteria. In all other cases, it must comply with one of the following criteria:

(1) Water treatment systems with 8 or more cycles of concentration with acceptable water quality to reduce freshwater consumption in cooling tower makeup.[72]

(2) WUE of the data centre is no more than 2.3 L/kWh, and meets the WUE Green Activity criteria by 2035.

C. GWP

Complies with the following criteria:

(1) The GWP of refrigerants used in the data centre cooling system must not exceed 675, or meet applicable local standards and regulations, whichever is lower.

Transition Measure

N/A.

Exclusion

N/A.

72 Corresponds to BEAM Plus EDC v1.0, WU-01-06 requirement.

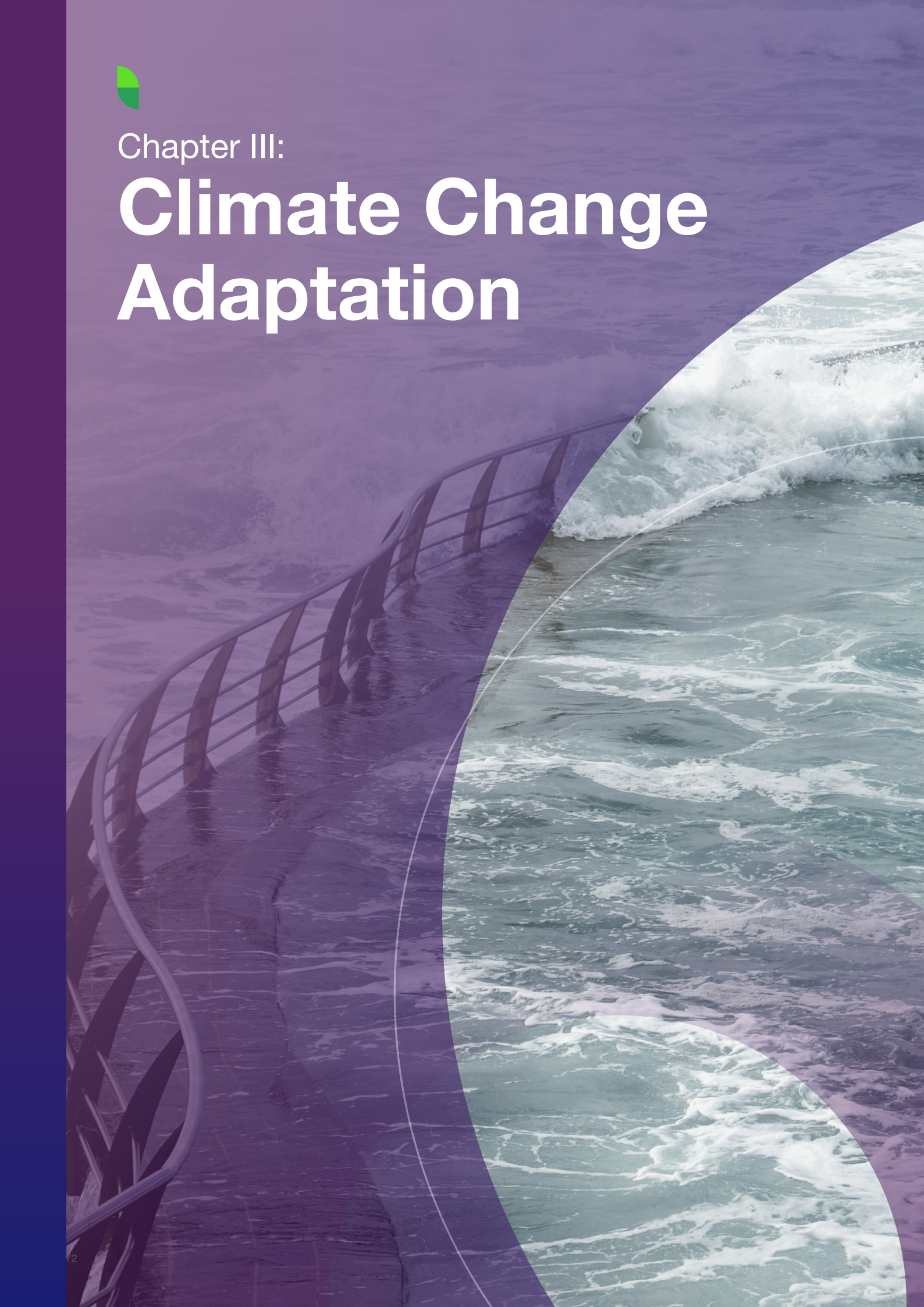
F-002 Data-driven solutions for greenhouse gas emissions reductions

Sector	Information and communications technology (ICT)
Activity Category	Information services
Activity Description	Development or use of ICT solutions for collecting, transmitting, storing, analysing, and modelling of data that support the reduction of GHG emissions. ICT solutions include the use of decentralised technologies (i.e. distributed ledger technologies), Internet of Things (IoT), 5G and Artificial Intelligence. Examples include but are not limited to smart meters, intelligent energy management systems, AI-powered carbon measurement and accounting software and tools, plant and system optimisation using AI, and big data analytics to help reduce emissions.
Associated ISIC Code(s)	61XX*, 62XX*, 6311 * Includes all activities classified under the division denoted by the first two digits of the relevant ISIC code.
Criteria and Thresholds	
Environmental Objective	Climate change mitigation
Green Activity	The activity complies with the scope of either A or B. **A. ICT solutions that improve the emission profiles of other sectors** The activity complies with all of the following criteria: (1) Provides data and analytics for energy efficiency that enable GHG emission reductions. (2) Demonstrates life cycle GHG emissions reduction on par with the best performing solutions on the market. (3) GHG emissions reductions are calculated using GHG Protocol,[73] ISO 14067:2018, ISO 14064-2:2019, or a similar methodology, and verified by an independent third party. **B. ICT solutions that improve the emission profile of the IT industry (including IT products and processes)** The activity complies with one of the following criteria: (1) Increasing energy efficiency. (2) Reducing GHG emissions. (3) Maximising product use, including Software-as-a-Service (SaaS) applications.
Transition Activity	N/A.
Transition Measure	N/A.
Exclusion	N/A.

73 https://ghgprotocol.org/

Chapter III:

Climate Change Adaptation





Background

Despite ongoing global efforts to limit global warming to 1.5°C under the Paris Agreement, climate risks continue to intensify. Between 2014 and 2023, economic losses from extreme weather exceeded US$2 trillion,[74] with over 40% of the global population residing in areas highly vulnerable to climate change.[75] Climate change adaptation refers to the process of adjustment to actual and expected climate change and its impacts.[76]

Climate change adaptation is inherently complex, requiring solutions tailored to specific locations, contexts, and vulnerabilities. Efforts depend heavily on local capacities, and global standards for adaptation remain limited. Further compounding the challenge is the substantial financing gap, estimated at US$187–359 billion annually.[77] A taxonomy can provide a structured and systematic framework to prioritise adaptation actions, scale financing, and allocate resources effectively.

74 The economic cost of extreme weather, International Chamber of Commerce, Oxera https://iccwbo.org/wp-content/uploads/sites/3/2024/11/2024-ICC-Oxera-The-economic-cost-of-extreme-weather-events.pdf

75 WHO website, https://www.who.int/health-topics/climate-change

76 https://eur-lex.europa.eu/eli/reg/2020/852/oj/eng

77 UNEP Adaptation Gap Report 2024, https://www.unep.org/resources/adaptation-gap-report-2024



Hong Kong's Adaptation Framework: Core Principles

The adaptation framework in the Hong Kong Taxonomy ("Adaptation Framework") aims to establish a pragmatic, locally relevant, and scalable foundation to define adaptation-related investments. It is guided by the following four core principles:

A Building block approach for phased development

The concept of climate change adaptation is relatively nascent and still evolving. To address knowledge gaps and build capacity, the Adaptation Framework adopts a building block approach for phased development. It begins with a streamlined structure that can adapt and expand incrementally, allowing for the inclusion of additional sectors, activities, and measures as circumstances and market needs change.

To ensure alignment with the available global guidance for adaptation, the Adaptation Framework draws reference from mainstream publications such as the Climate Bonds Resilience Taxonomy (CBRT) and guidelines from the Intergovernmental Panel on Climate Change (IPCC).

B Localised for Hong Kong and adjacent regions

Given the localised nature of adaptation, the Adaptation Framework prioritises the most relevant adaptation-related investments for Hong Kong and its adjacent regions, such as areas in the Greater Bay Area that face similar physical risks. When considering the adaptation needs of Hong Kong, key geographic and climatic factors of Hong Kong such as the hilly terrain, sub-tropical climate, natural hazards associated with tropical cyclones and rainstorms, and local trends of climate change, etc. have been taken into account.

C Adapting measures-focused

The current phase of the Hong Kong Taxonomy focuses on adapting measures. Adapting measures represent sub-components of activities rather than complete, standalone activities on their own. They typically involve technologies, processes, materials, practices, or services that positively contribute to the resilience and adaptation of broader activities. Compared to other types of adaptation-related investments,[78] adapting measures are generally easier to define, more immediately actionable, and less dependent on system-wide considerations.

By focusing initially on adapting measures, the Taxonomy facilitates capacity building and familiarisation with the Adaptation Framework. Over time, other types of adaptation-related investments may be considered for inclusion to address the evolving needs of the market.

Given the nature of adapting measures, only their capital expenditures (CapEx) and operational expenditures (OpEx) can be classified as taxonomy-aligned, while revenue is excluded.

78 Adaptation-related investments, as classified by the CBRT, fall into four distinct categories, namely adapting measures, adapted activities, enabling measures, and enabling activities. These categories differ in terms of scope, purpose, and level of intervention.

D Graduated assessment approach

Similar to mitigation activities, adaptation-related investments must meet defined substantial contribution criteria to be deemed taxonomy-aligned.

The Hong Kong Taxonomy adopts a graduated approach to designate the type of substantial contribution criteria. Initially, the Adaptation Framework relies on a Whitelist approach, which is also one of the most fundamental methods of assessment proposed under the CBRT.

In a nutshell, the Whitelist approach puts forward a curated "whitelist" of adapting measures that are automatically deemed eligible without the need to meet specific criteria. The whitelisted adapting measures are selected based on thorough research and are reasonably assured to make a substantial contribution to their intended adaptation goals across a broad range of contexts while posing minimal risks of maladaptation. An investment that falls under the predefined "whitelist" of adapting measures can be automatically deemed as taxonomy-aligned.

Maladaptation risk is defined as an unintended measurable increase in vulnerability or exposure to climate hazards posed by an adaptation-related investment to the wider community. An example is expanding flood barriers that inadvertently increase flood risk in adjacent areas due to shifting water flow patterns.

Starting with a Whitelist approach reflects the nascent state of adaptation research, as well as the relative lack of consensus and accessible data on measurable thresholds. Looking ahead, as global and local understanding of adaptation improve and Hong Kong-specific criteria and thresholds are more robustly established, other more sophisticated assessment approaches proposed by the CBRT may be explored, such as technical specification checks and threshold-based criteria, with a view to expanding the adaptation-related investments scope.

Initial Focus Sector:

Water Sector

The selection and prioritisation of the focus sector within the Adaptation Framework require the consideration of a comprehensive set of local factors. These include physical climate conditions, climate hazards, infrastructure vulnerabilities, and risks to economic and business continuity, among others.

Hong Kong and its adjacent regions are vulnerable to the impacts of tropical cyclones and rainstorms. In the context of climate change, the intensity of tropical cyclones and the frequency of occurrence of extreme precipitation are expected to increase in a warming climate. The extreme weather associated with tropical cyclones and rainstorms, including extreme wind, storm surge, wind wave, and heavy rain, can cause infrastructure damage and economic loss. In particular, flooding due to heavy rain, storm surge, and/or wind wave can incur significant financial and societal impacts. For Hong Kong in particular, despite having an average annual rainfall of about 2,400 millimetres, the city's hilly terrain, which limits rainwater storage, and the lack of natural freshwater sources make it heavily reliant on external water supply systems. This dependency presents challenges to long-term water security.

Given these vulnerabilities and the significant implications of water-related challenges, the current phase of the Taxonomy prioritises the **Water sector** for climate change adaptation.

Two climate hazards, namely **flood damage**[79] and **water stress**,[80] have been identified as the most relevant for the Water sector. The economic impacts associated with these climate hazards are **asset value loss** and **net revenue loss**.

Other climate hazards significant to Hong Kong and its adjacent regions — for instance, storm damage,[81] mass movement damage,[82] and heat stress[83] — will be explored in future iterations of the Taxonomy. These hazards will be considered for inclusion within relevant sectors such as buildings, transportation, and energy infrastructure as appropriate. This phased approach ensures a systematic expansion of the Adaptation Framework to align with evolving local needs and capacities.

79 According to the CBRT, flood damage refers to the consequences of flooding associated with heavy precipitation, pluvial floods, river floods, coastal floods, glacial lake outburst floods, and changes in relative sea level.

80 According to the CBRT, water stress refers to the consequences of water scarcity associated with changes in mean precipitation, aridity, hydrological drought, agricultural and ecological drought, or reduced freshwater availability due to saline intrusion.

81 According to the CBRT, storm damage refers to the consequences of severe windstorms, tropical cyclones, sand and dust storm, hail, changes in mean wind speeds and convective storms.

82 According to the CBRT, mass movement damage refers to the consequences of landslides, coastal erosion, snow avalanches, permafrost thawing, subsidence, and other climate-driven mass movement events.

83 According to the CBRT, heat stress refers to the consequences of high temperatures associated with increased mean surface temperature and/or extreme heat events.

Whitelisted Adapting Measures

Under the current phase of the Hong Kong Taxonomy, four adapting measures within the Water Sector have been identified and scoped in using the Whitelist approach, as shown in Table 18. More adapting measures will be considered for inclusion in future iterations of the Taxonomy, as appropriate, to support the expansion of adaptation-related investments.

One of the four measures, implementation of stormwater separation, is included under the Government Sustainable Bond Programme (GSBP). Consequently, such projects financed under the GSBP meeting the relevant substantial contribution criteria are automatically deemed taxonomy-aligned.

As of 30 September 2024, the Government Sustainable Bond Programme by the Hong Kong Government has financed 16 projects (out of 116)[84] focused on adaptation. The 16 projects received proceeds amounting to HK$194 billion, representing over 4.1% of the total proceeds allocated as of that date.

Table 18. Whitelisted adapting measures within Water Sector

Sector: Water Sector

Sub-sector	Adapting measure	Associated ISIC Code(s)	Impact(s) of hazard	Adaptation outcome(s)
Climate hazard: Flood Damage				
Wastewater collection and treatment	G-001 Implementation of stormwater separation	3600, 4290	Asset value loss due to flood damage	Reduced physical vulnerability due to separation of rainwater from wastewater systems.
Water supplies	G-002 Installing water metering	4322	Net revenue loss due to flood damage	Improved adaptive capacity due to optimised water usage and loss prevention.
Climate hazard: Water Stress				
Water supplies	G-003 Implementation of automated water control systems	4322	Asset value loss due to water stress	Reduced physical vulnerability due to optimised water distribution.
	G-004 Installing water resource monitoring equipment	4322	Asset value loss due to water stress	Improved adaptive capacity due to real-time monitoring of water resource availability.

84 Green Bond Report 2024, https://www.hkgb.gov.hk/en/others/documents/FSTB_GreenBond24_eBooklet_EN.pdf



Chapter IV:

Looking Forward

The Hong Kong Taxonomy is an evolving framework, designed to adapt to market dynamics, technological advancements, stakeholder feedback, and shifting policy priorities. To ensure effective implementation that aligns with market needs, the Taxonomy will continue to be rolled out in phases.

As part of HKMA's development strategy, the HKMA has engaged in extensive discussions with a wide range of stakeholders. Their feedback and insights have informed the inclusion of specific, stakeholder-recommended activities in Phase 2A. Looking ahead, the Taxonomy will continue to expand in scope in subsequent phases to incorporate additional activities, measures and elements, with a view to further supporting Hong Kong's green and transition objectives, as well as those of the wider region. The key areas under consideration for future development are summarised in Table 19.

Table 19: Areas under consideration for future development

Sector	Areas under consideration for future development
Energy	• Natural gas-fired power generation and nuclear energy power generation are being considered for inclusion, in light of their roles as transitional and low-carbon energy sources, respectively, which are critical to Hong Kong's decarbonisation plan. • The inclusion of hydrogen for electricity generation is under consideration, alongside power generation from other renewable sources, such as hydropower.
Transportation	• Air transport, including emerging technologies to reduce emissions in the aviation sector (e.g. sustainable aviation fuel), is being explored. • The Phase 2A activity on low-carbon transport infrastructure is under review to include bunkering and storage.
Manufacturing	• Activities such as the production of cement, iron and steel, basic chemicals, low-carbon liquid fuels, and biofuels are under review, in support of the transition needs of the Chinese Mainland and the region's industrial developments.
Construction	• Potential updates to green criteria and the addition of transition elements for building and infrastructure activities are being explored, with consideration of local factors.
Waste	• Phase 1 activities may be updated to include transition elements that support circular economy and resource efficiency. Activities related to recycling, such as food waste and non-hazardous waste treatment, are also being considered.
New sectors / other areas	• New sectors being considered for inclusion: (1) Sector on Carbon Capture, Utilisation and Storage, and (2) Sector on Water to cover activities related to water and wastewater treatment. • Further work on climate change adaptation will be explored. • The role of "Do No Significant Harm" will be explored.

The table above is indicative and non-exhaustive. The final inclusion of activities in subsequent phases will be subject to further discussion and consultation with a broad group of stakeholders.

Appendix:
Associated ISIC Codes

Climate Change Mitigation

Sector	Activity	Associated ISIC Code(s)
Energy	A-001 Electricity generation using concentrated solar power technology	3510 – Electric power generation, transmission and distribution
Energy	A-002 Electricity generation using solar photovoltaic technology	3510 – Electric power generation, transmission and distribution
Energy	A-003 Electricity generation from wind power	3510 – Electric power generation, transmission and distribution
Energy	A-004 Transmission and distribution of electricity	3510 – Electric power generation, transmission and distribution
Energy	A-005 Transmission and distribution of renewable and low-carbon gases	3520 – Manufacture of gas; distribution of gaseous fuels through mains 4930 – Transport via pipeline
Energy	A-006 Storage of electricity	N/A
Energy	A-007 District heating and cooling	3530 – Steam and air conditioning supply
Transportation	B-001 Public transportation system in urban and suburban areas	4912 – Freight rail transport 4921 – Urban and suburban passenger land transport 4922 – Other passenger land transport
Transportation	B-002 Personal mobility devices, cycle logistics	3092 – Manufacture of bicycles and invalid carriages 4649 – Wholesale of other household goods 4763 – Retail sale of sporting equipment in specialised stores 9529 – Repair of other personal and household goods
Transportation	B-003 Transport by motorbikes, passenger cars and light commercial vehicles	2920 – Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers 3091 – Manufacture of motorcycles 4540 - Sale, maintenance and repair of motorcycles and related parts and accessories 4922 – Other passenger land transport 7710 – Renting and leasing of motor vehicles
Transportation	B-004 Transportation of freight by sea	5012 – Sea and coastal freight water transport
Transportation	B-005 Transportation of passengers by sea	5011 – Sea and coastal passenger water transport

Sector	Activity	Associated ISIC Code(s)
Transportation	B-006 Low-carbon transport infrastructure	16XX – Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials* 22XX – Manufacture of rubber and plastics products* 23XX – Manufacture of other non-metallic mineral products* 25XX – Manufacture of fabricated metal products, except machinery and equipment* 27XX – Manufacture of electrical equipment* 2814 - Manufacture of bearings, gears, gearing and driving elements 3020 – Manufacture of railway locomotives and rolling stock 4100 – Construction of buildings 4210 – Construction of roads and railways 4220 – Construction of utility projects 4290 – Construction of other civil engineering projects 43XX – Specialised construction activities* 5221 – Service activities incidental to land transportation 5222 – Service activities incidental to water transportation 5223 – Service activities incidental to air transportation 5224 – Cargo handling 5529 – Other transportation support activities 7110 – Architectural and engineering activities and related technical consultancy 7120 – Technical testing and analysis * Includes all activities classified under the division denoted by the first two digits of the relevant ISIC code.
Construction	C-001 Renovation of existing buildings	4100 – Construction of buildings 4321 – Electrical installation 4322 – Plumbing, heat and air-conditioning installation 4329 – Other construction installation 4330 – Building completion and finishing 4390 – Other specialised construction activities

Sector	Activity	Associated ISIC Code(s)
Construction	C-002 Construction of new buildings	4100 – Construction of buildings 4321 – Electrical installation 4322 – Plumbing, heat and air-conditioning installation 4329 – Other construction installation 4330 – Building completion and finishing 4390 – Other specialised construction activities
Construction	C-003 Installation, maintenance, and repair of building equipment	3312 – Repair of machinery 3530 – Steam and air conditioning supply 4329 - Other construction installation 71XX – Architectural and engineering activities; technical testing and analysis* 9522 – Repair of household appliances and home and garden equipment * Includes all activities classified under the division denoted by the first two digits of the relevant ISIC code.
Waste	D-001 Sewage sludge treatment – anaerobic digestion or co-digestion	3700 – Sewerage
Waste	D-002 Collection and transport of non-hazardous waste in source segregated fractions	3811 – Collection of non-hazardous waste
Waste	D-003 Utilisation/ treatment of domestic waste – anaerobic digestion or co-digestion	3821 – Treatment and disposal of non-hazardous waste
Manufacturing	E-001 Manufacture of hydrogen	2011 – Manufacture of basic chemicals
Manufacturing	E-002 Manufacture of equipment for the production of hydrogen through electrolysis	2511 – Manufacture of structural metal products 2599 – Manufacture of other fabricated metal products not elsewhere classified 2790 – Manufacture of other electrical equipment 2829 – Manufacture of other special-purpose machinery
Manufacturing	E-003 Manufacture of Aluminium: Alumina refining	2420 – Manufacture of basic precious and other non-ferrous metals
Manufacturing	E-004 Manufacture of aluminium: Aluminium smelting	2420 – Manufacture of basic precious and other non-ferrous metals 2432 – Casting of other non-ferrous metals

Sector	Activity	Associated ISIC Code(s)
ICT	F-001 Data processing, hosting and related activities	6311 – Data processing, hosting and related activities
ICT	F-002 Data-driven solutions for greenhouse gas emissions reductions	61XX – Telecommunications* 62XX – Computer programming, consultancy and related activities* 6311 – Data processing, hosting and related activities * Includes all activities classified under the division denoted by the first two digits of the relevant ISIC code.

Climate Change Adaptation

Sector	Activity	Associated ISIC Code(s)
Water	G-001 Implementation of stormwater separation	3600 - Water collection, treatment and supply 4290 - Construction of other civil engineering project
Water	G-002 Installing water metering	4322 – Plumbing, heat and air-conditioning installation
Water	G-003 Implementation of automated water control systems	4322 – Plumbing, heat and air-conditioning installation
Water	G-004 Installing water resource monitoring equipment	4322 – Plumbing, heat and air-conditioning installation



HONG KONG MONETARY AUTHORITY

香 港 金 融 管 理 局