



Performance (Environment)

We aim to continue to design, construct and manage high quality developments that contribute positively to the communities in which we operate and the environment.

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



We aim to continue to design, construct and manage high-quality developments that contribute positively to the environment and to the communities in which we operate. Swire Properties is committed to strengthening our environment-related [policies](#) and management approaches to environmental protection by expanding the focus of our initiatives beyond the direct impacts of our business. We seek to address environmental concerns that are crucial to the communities in which we operate, including climate change, energy management, resource and circularity, and water conservation. We also provide [thought leadership](#) on environmental and other sustainability issues to stakeholders in our industry – locally, regionally and globally.

Top Material Issues

<p>Green building construction/renovation</p>	<p>Energy efficiency</p>	<p>Climate adaptation and resilience</p>	<p>Decarbonisation</p>
<p>Resource and circularity</p>	<p>Visitor/occupant health and wellbeing</p>	<p>Renewable energy</p>	<p>Indoor air quality</p>

Performance (Environment)

Policies

Energy

Building/Asset Investments

Progress

Resource and Circularity

Profile of Environmental Impacts

Water

Biodiversity

Climate Change

Occupant Wellbeing



Policies

Our policies clearly set out our environmental principles, approaches and commitments.

Environmental Policy

This policy sets out the principles underpinning our approach to managing and reducing the environmental impacts arising from our operations.

Climate Change Policy

Climate change poses significant risks to our business. This policy outlines our commitment to managing climate change risks across our operations, and developing mitigation, adaptation and resilience strategies to address these risks.

Energy Policy

This policy outlines our approach to energy management, which involves integrating energy efficiency considerations over the life cycle of our developments by adopting appropriate technologies and influencing the behaviour of our tenants, employees and others with whom we work.

Resource and Circularity Policy

This policy guides our approaches to reducing waste, from the design and construction phases of our projects to the daily operation and management of our buildings.

Water Policy

This policy sets out our commitment to reducing water consumption intensity by designing and implementing efficient water management measures, ensuring the availability of water consumption data, complying with all water-related legal requirements, and other measures.

Biodiversity Policy

This policy sets out how we incorporate biodiversity considerations into our operations by minimising the adverse impacts of our operations on biodiversity and ecosystems, supporting appropriate biodiversity and conservation initiatives, promoting awareness of biodiversity and conservation issues, and other measures.

Environmental and Energy Management Systems

Environmental considerations are integrated into different areas of our business through environmental and energy management systems that conform to international standards such as the ISO 14001 Environmental Management System and the ISO 50001 Energy Management System. In 2021, approximately 86%¹² of our assets in Hong Kong and the Chinese Mainland conformed to the ISO 14001 and ISO 50001 management systems. We believe these systems create a robust framework for managing our environmental and energy performance.

GRI
301-3, 305-7

HKEX
Aspect A1, A2, A3, A4
KPI A3.1

¹² By gross floor area (GFA).

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Thought Leadership

Driving Hong Kong Towards Net-Zero Carbon in Partnership with the HKGBC



Swire Properties was the principal partner of Hong Kong’s first “Advancing Net Zero Ideas Competition”, presented by the Hong Kong Green Building Council (“HKGBC”). Supporting the World Green Building Council’s global Advancing Net Zero project and the Hong Kong government’s target of achieving carbon neutrality by 2050, the competition encouraged entries

from around the world for designs that will bring positive change to the built environment and beyond.

We provided detailed building operation data collected from two of our green buildings at Taikoo Place – One Taikoo Place and Oxford House – to participants. This enabled the competition teams to conduct in-depth analysis of actual buildings in order to develop realistic, innovative solutions to help high-rise, high-density cities like Hong Kong achieve net-zero carbon. Our employees were also represented on the competition’s organising committee, technical committee and jury panel.

The competition received 22 team entries from a total of 58 organisations and companies, all of which were of a very high standard. Of the many inspiring and avant-garde concepts, the jury selected three winners and five merit awards in the Future Building and Existing Building categories.

The winning and merit entries were showcased at a public exhibition held in December 2021 at Taikoo Place’s Lincoln House Linkbridge and in an e-book hosted on the [HKGBC website](#).

As part of our broader efforts to motivate the industry to support net-zero emissions, we participated in the “Advancing Net Zero Webinar Series”, also organised by the HKGBC. We shared insights on our 1.5°C-aligned carbon reduction strategy, technological innovations, as well as our embodied carbon management methods.

We were also invited to speak at the HKGBC’s “International Conference on Advancing Net Zero” in November 2021. At the conference, Tim Blackburn, our Chief Executive, took part in an expert panel discussion, sharing the Company’s leadership experience in driving the net-zero transition. In addition, our colleagues presented case studies about Swire Properties’ science-based targets and net-zero strategy across our global portfolio, as well as our pioneering energy management work at Taikoo Li Sanlitun.

We were also honoured to have our decarbonisation efforts featured in the World Green Building Council’s Building to [COP26 Thought Leadership Series](#), which promoted collaboration for climate action ahead of COP26, held in Glasgow in November 2021.

Performance (Environment)

Policies

Energy

Building/Asset Investments

Progress

Resource and Circularity

Profile of Environmental Impacts

Water

Climate Change

Biodiversity

Occupant Wellbeing



We strive to provide guidance and leadership for the property sector in Hong Kong, throughout Asia Pacific and on a global level by sharing our experience and expertise. We also promote the importance of and demonstrate our commitment to sustainability at numerous conferences and seminars in Hong Kong and beyond – sharing our vision in the hope of inspiring other corporations to achieve their sustainability goals. In 2021, we delivered presentations at various conferences and seminars including:

- “The Future of People Management: ESG As a Workforce Strategy”, organised by The Hong Kong General Chamber of Commerce
- “Sustainable Procurement for New Building Development and Interior Renovation” webinar, organised by the Hong Kong Green Building Council
- “Heading to the 2060 Carbon Neutrality Goal, the Pathway and Opportunity for the Real Estate Industry” Forum and Award Ceremony in Shanghai, organised by the US Green Building Council
- “CEO Talk: BUILDING a Green Future” virtual talk, organised by the Alliance for Green Commercial Banks, the Hong Kong Monetary Authority and the International Finance Corporation
- “HKGBC Session – Rethinking Built Spaces at ReThink HK 2021”, organised by ReThink Hong Kong
- “Eco Asia Conference: Towards Material Circularity in Hong Kong”, organised by the Hong Kong Trade Development Council and the Environmental Bureau of the Government of the Hong Kong Special Administrative Region
- “ULI Asia Pacific REImagined – Industry Leaders Response Panel on Decarbonisation”, organised by the Urban Land Institute
- “Driving Shared Values Through Effective ESG Reporting Webinar”, organised by The Hong Kong Institute of Certified Public Accountants

Performance (Environment)

- Policies
- Progress**
- Profile of Environmental Impacts
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Progress

Our Performance (Environment) Working Group, which comprises 28 members from different functions within the Company, has developed key performance indicators for seven environmental and resource management focus areas.

This year, we continued to work towards our 2025 and 2030 KPIs, with our approved 1.5°C-aligned science-based targets guiding our efforts across the Company. Our 2021 progress is summarised in the table below.

Progress Summary Table

 <h3 style="margin: 0;">Climate Change</h3>	
<h4 style="margin: 0;">Climate Change</h4>	
<h4 style="margin: 0;">2025 KPI</h4>	<h4 style="margin: 0;">Progress Updates in 2021</h4>
<ul style="list-style-type: none"> • Operational Carbon Emissions (Scope 1 and 2 SBT): Reduce absolute greenhouse gas (“GHG”) emissions by 25%¹³ 	<ul style="list-style-type: none"> • Reduction of Scope 1 and 2 absolute GHG emissions: ↓ 23%
<h4 style="margin: 0;">2030 KPI</h4>	<h4 style="margin: 0;">Progress Updates in 2021</h4>
<ul style="list-style-type: none"> • Value Chain GHG Emissions (Scope 3 SBT – Downstream Leased Assets): Reduce carbon intensity from the tenant-controlled portion of downstream leased assets by 28% per square metre¹⁴ • Value Chain GHG Emissions (Scope 3 SBT – Capital Goods): Reduce embodied carbon intensity from new major developments by 25% per square metre (construction floor area)¹⁵ 	<ul style="list-style-type: none"> • Reduction of carbon intensity from the tenant-controlled portion of downstream leased assets: ↓ 34.6% • Reduction of embodied carbon intensity from new major developments: To be reported upon completion of Two Taikoo Place in 2022



¹³ Compared to the 2019 baseline.

¹⁴ Compared to the 2018 baseline.

¹⁵ Compared to the 2016-2018 baseline.

Performance (Environment)

- Policies
- Progress**
- Profile of Environmental Impacts
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Energy

Energy Reduction

2025 KPI

- Reduction of energy use intensity¹⁶:

*Hong Kong portfolio*¹⁷

↓ **20%**¹⁸

*Chinese Mainland portfolio*¹⁹

↓ **13%**¹⁸

Progress Updates in 2021

- Reduction of energy use intensity:

Hong Kong portfolio

↓ **7%**

Chinese Mainland portfolio

↓ **3%**

- Continued to implement energy-saving measures throughout our Hong Kong and Chinese Mainland portfolios and hotels.

Renewable Energy

2025 KPI

- Generate **4-6%** of landlord's building energy from on-site renewable or clean energy sources for selected newly completed office projects

Progress Updates in 2021

- Approximately **6%** of landlord's building energy will be supplied by renewable sources at Two Taikoo Place.
- 100%** of electricity at Sino-Ocean Taikoo Li Chengdu and The Temple House in Chengdu, as well as Taikoo Hui in Guangzhou is procured from [renewable sources](#).



¹⁶ The 2025 KPIs under Energy Reduction have been updated per our approved 1.5°C-aligned SBT. Energy consumption refers to purchased electricity for the provision of shared services for and in the common parts of our buildings.

¹⁷ Our Hong Kong portfolio refers to our office and retail portfolio and hotels in Hong Kong.

¹⁸ Compared to the 2019 baseline.

¹⁹ Our Chinese Mainland portfolio refers to our office and retail portfolio and hotels in the Chinese Mainland.

Performance (Environment)

- Policies
- Progress**
- Profile of Environmental Impacts
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Resource and Circularity

Resource Recycling and Waste Diversion

2025 KPI

Waste diversion rates from landfills:

- Hong Kong portfolio (including hotels)
30% of commercial waste
- Hong Kong (projects under development)
85% of demolition waste
70% of construction waste
- Chinese Mainland (projects under development)
50% of total waste

Waste recycling rate:

- Chinese Mainland portfolio (including hotels)
40% of commercial waste

Progress Updates in 2021

Waste diversion rates from landfills:

- Hong Kong portfolio (including hotels)
23.6% of commercial waste
- Hong Kong (projects under development)
94.6% of demolition waste for 6 Deep Water Bay Road
84.5% of construction waste (foundation stage) for Commercial Building Development at 46-56 Queen's Road East
- Chinese Mainland (projects under development)
84.5% of construction waste for Taikoo Li Qiantan
60.3% of construction waste for Taikoo Li Sanlitun West extension

Waste recycling rate:

- Chinese Mainland portfolio (including hotels)
41.6% of commercial waste



Performance (Environment)

Policies **Progress** Profile of Environmental Impacts Climate Change
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
 Building/Asset Investments



Water

Water Reduction

2025 KPI

- Reduction of water intensity²⁰:

Hong Kong portfolio (m³/m²)

↓ 10 %

Chinese Mainland portfolio (m³/m²)

↓ 20 %

Hotels (m³/guest night)

↓ 8 %

Progress Updates in 2021

- Reduction of water intensity:

Hong Kong portfolio (m³/m²)

↑ 4.7 %

Chinese Mainland portfolio (m³/m²)

↓ 20.1 %

Hotels (m³/guest night)

↑ 6.6 %



Biodiversity

Integration

2025 KPI

- Conduct biodiversity surveys in **50%** of new development projects
- Implement guidelines to integrate biodiversity considerations into new developments

Progress Updates in 2021

- The findings and recommendations from the completed urban biodiversity study of our Taikoo Place redevelopment have been discussed and shared with various departments to enhance the biodiversity of both existing projects and projects under development. The findings from the study will be used to establish guidelines to integrate biodiversity considerations in future new projects.

²⁰ Hong Kong and Chinese Mainland portfolio: Compared to the 2016 BAU baseline; Hotels: Compared to the 2018/2019 baseline.

Performance (Environment)

- Policies
- Progress**
- Profile of Environmental Impacts
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Occupant Wellbeing

Indoor Air Quality (“IAQ”) Management

2025 KPI

- For common areas, **90%** of buildings achieve IAQ Excellent Class in our Hong Kong portfolio²¹ or fulfil the local IAQ standard in our Chinese Mainland portfolio²²

Progress Updates in 2021

- For common areas, approximately **82%** of buildings in our Hong Kong portfolio achieved IAQ Excellent Class.
- Approximately **80%** of buildings in our Chinese Mainland portfolio fulfilled the local IAQ standard.



Building/Asset Investments

Environmental Building Assessment Schemes²³

2025 KPI

- 100%** of wholly-owned new development projects²⁴ to achieve the highest environmental building assessment scheme rating
- 90%** of all wholly-owned existing developments²⁴ to achieve the highest environmental building assessment scheme rating

Progress Updates in 2021

- 100%** of projects under development achieved the highest ratings.
- 86%** of existing developments achieved the highest ratings.

Hong Kong portfolio

- The Citygate Outlets expansion achieved Final Gold under BEAM Plus New Buildings Version 1.2.

Chinese Mainland portfolio

- Both ONE INDIGO and INDIGO Mall achieved a 2-star rating under the China Green Building Design Label.
- Taikoo Li Qiantan achieved WELL Platinum (Core) v2 Pilot.



²¹ Our Hong Kong portfolio refers to our office and retail portfolio and hotels in Hong Kong.

²² Our Chinese Mainland portfolio refers to our office and retail portfolio and hotels in the Chinese Mainland.

²³ BEAM Plus/LEED/China Green Building Design Label/WELL Certification; the most suitable environmental building assessment scheme is selected based on the project location.

²⁴ Exclude joint venture projects and trading properties.

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts**
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Profile of Environmental Impacts

Carbon Emissions

In 2021, our total carbon emissions decreased by 13% compared to 2020. The total carbon intensity in our Hong Kong, Chinese Mainland and U.S.A. portfolios and hotels decreased by 25% compared to 2020.

The Company's largest source of carbon emissions under our control is Scope 2 emissions arising from purchased electricity. This category of emissions decreased by 13% compared to 2020 and this is attributed to various initiatives including the adoption of innovative low-carbon technologies, improved energy management, and the procurement of renewable electricity expanding to 100% at Taikoo Hui in Guangzhou and The Temple House in Chengdu.

For further information about our progress against SBTs and efforts in reducing our carbon emissions, please click [here](#).

HKEX
KPI A3.1

GRI
305

HKEX
KPI A1.2, A1.5

Carbon Emissions of Portfolios 2017-2021

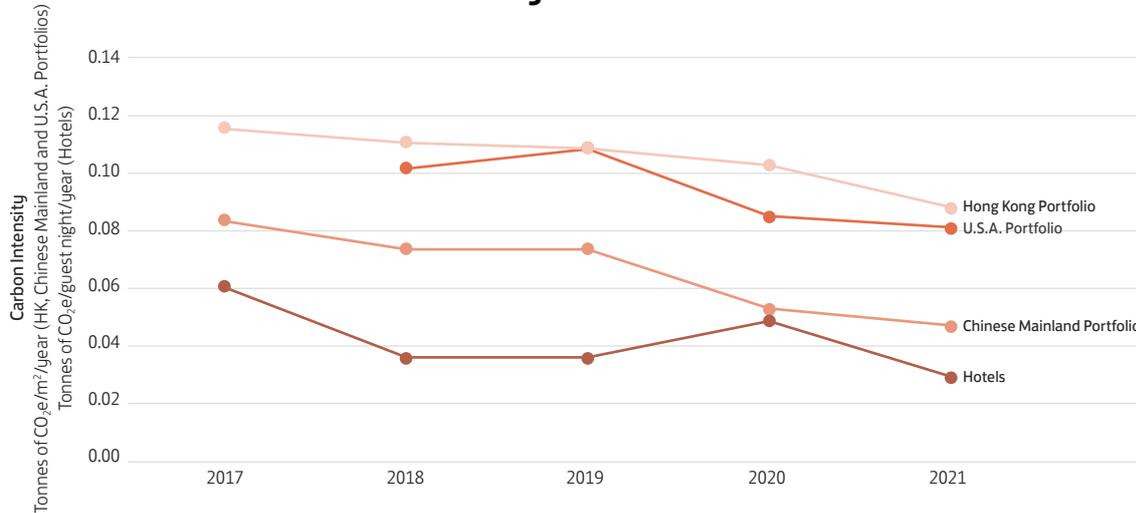


Performance (Environment)

Policies Progress **Profile of Environmental Impacts** Climate Change
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
 Building/Asset Investments



Carbon Intensity of Portfolios 2017-2021

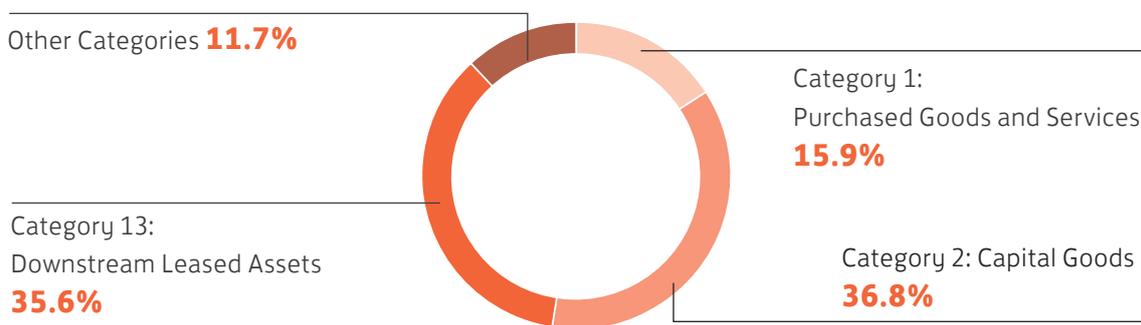


Carbon Emissions - Scope 3

Swire Properties is conscious of our direct and indirect emissions at various stages along the value chain. Besides measuring Scope 1 (i.e. direct carbon emissions from energy combustion on-site) and Scope 2 carbon emissions (i.e. indirect carbon emissions from electricity purchased and used), we have conducted comprehensive reviews of Scope 3 emissions (i.e. indirect emissions that occur along the value chain) since 2018 to understand our emission sources and identify the associated material categories for management and reporting.

From our review, we identified that the most significant sources of our Scope 3 emissions are Category 2 – Capital Goods and Category 13 – Downstream Leased Assets, as categorised by the Greenhouse Gas (“GHG”) Protocol:

Scope 3 Emissions by Category



To address the two most significant categories of Scope 3 emissions, we have established [science-based reduction targets](#) to reduce emissions generated by capital goods and downstream leased assets by 25% and 28% per square metre respectively by 2030.

The disclosure of our Scope 3 emissions is included in this report to present a more holistic view of the Company’s carbon footprint along the value chain. This data has been included in our SD Report since 2020 – please refer to [Performance Data Summary](#) for details. While Swire Properties may have limited influence or control over some of our Scope 3 emissions categories, we will continuously monitor these emissions, particularly if they begin to represent an increasing portion of our total carbon footprint.

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts**
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



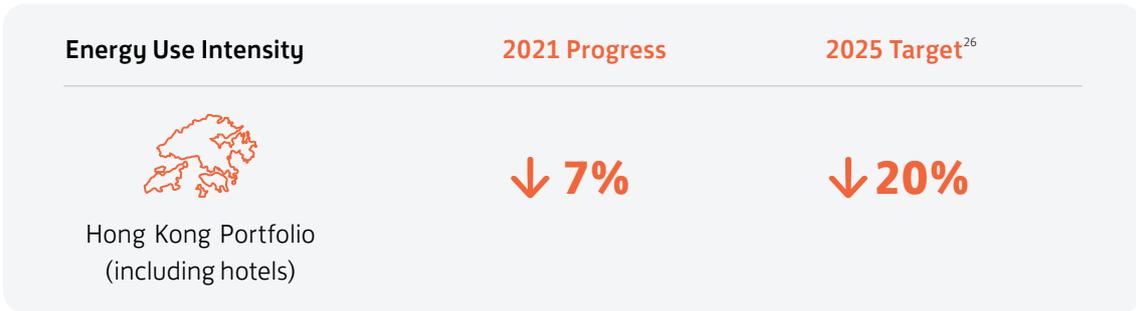
Energy Use Intensity

In 2021, our energy use intensity²⁵ decreased by 35%, from 194 kWh per square metre (“kWh/m²”) per year to 126 kWh/m² per year across our global portfolios, as compared to our 2008 baseline year.

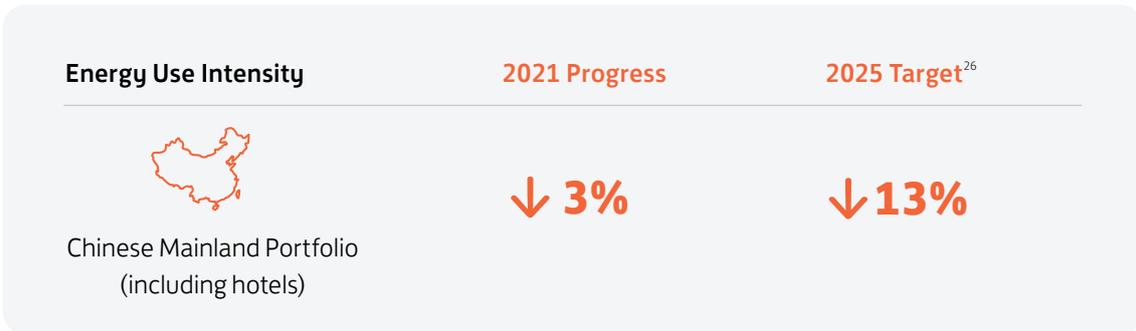
In 2021, the energy use intensity in our Hong Kong portfolio (including hotels) decreased by 7% as compared to our 2019 baseline year.

GRI
302

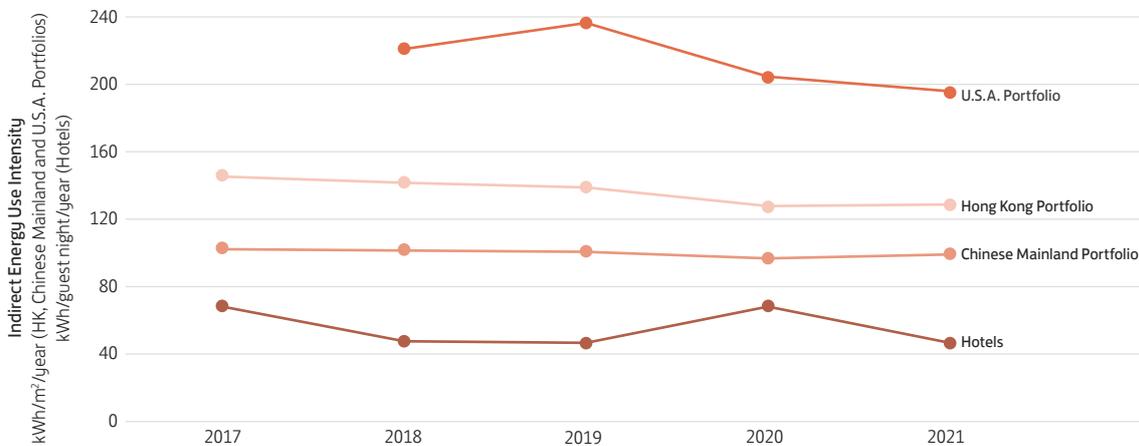
HKEX
KPI A2.1, A2.3



In 2021, the energy use intensity in our Chinese Mainland portfolio (including hotels) decreased by 3% as compared to our 2019 baseline year.



Indirect Energy Use Intensity of Portfolios 2017-2021



For further information about our energy reduction initiatives, please click [here](#).

²⁵ Energy use intensity refers to electricity consumption (per square metre) for the provision of shared services for and in the common parts of our buildings.

²⁶ Compared to the 2019 baseline.

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts**
- Climate Change
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Water Use

In 2021, the total water usage in our portfolios in Hong Kong and the Chinese Mainland decreased by 3.8% as compared to 2020. The total water intensity in these portfolios have also decreased - this is partially due to the replacement of a faulty water pipe in March 2021. This was accomplished after liaising with multiple government departments, district councillors and an estate management company.

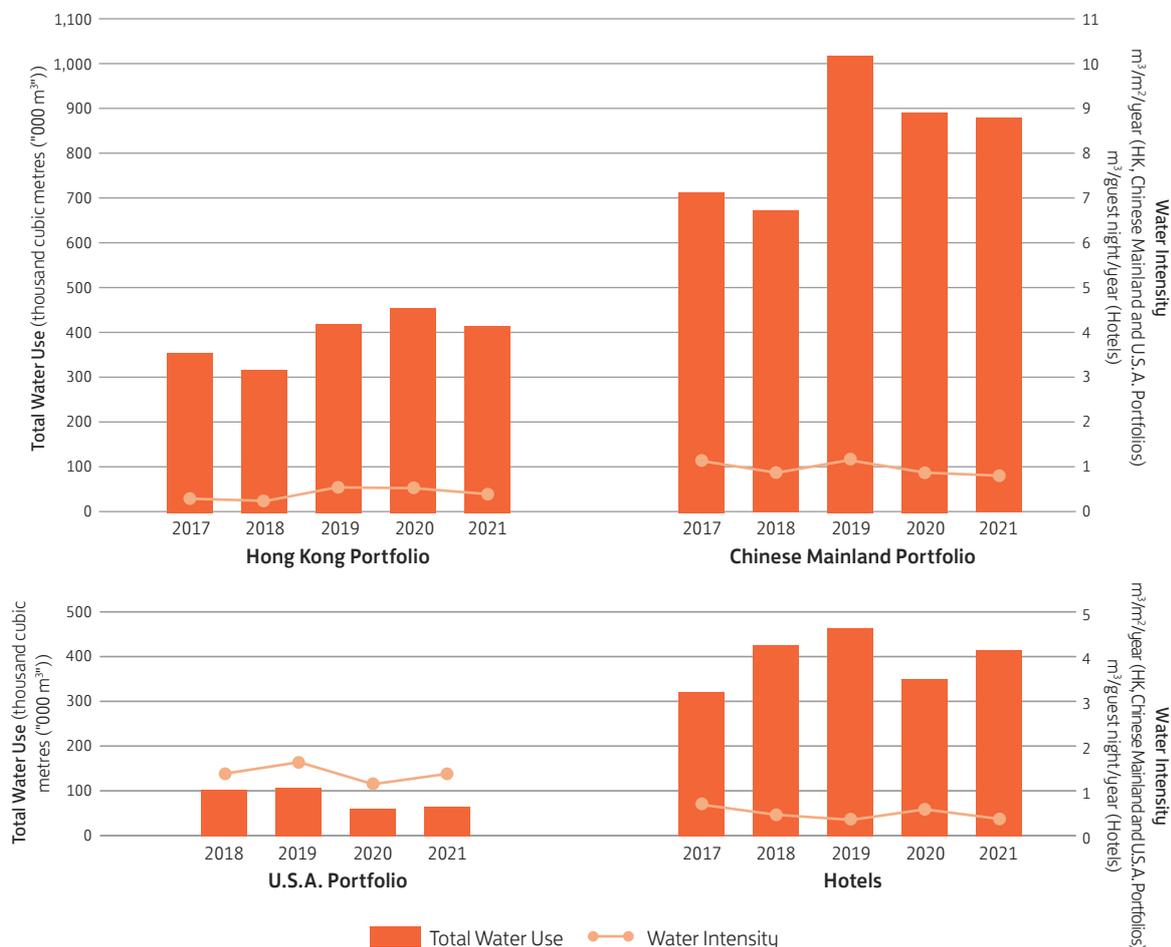
The water intensity in our hotel operations decreased in 2021 as compared to 2020. We attribute this decrease, in part, to the relative increase in the number of guest nights during the period when the COVID-19 pandemic situation improved for a time in 2021.

When measured against our 2025 KPI, the water intensity of the Hong Kong portfolio increased by 4.7% in 2021 as compared to the 2016 BAU baseline. This increase is attributed to the opening of the Citygate Outlets extension in 2021, a shopping mall with a relatively higher water intensity.

The water intensity in our Chinese Mainland portfolio decreased by 20.1% compared to the 2016 BAU baseline. This achievement is attributed to better monitoring enabled by the introduction of sub-metering in our buildings and from the ongoing recycling of grey water and rainwater.

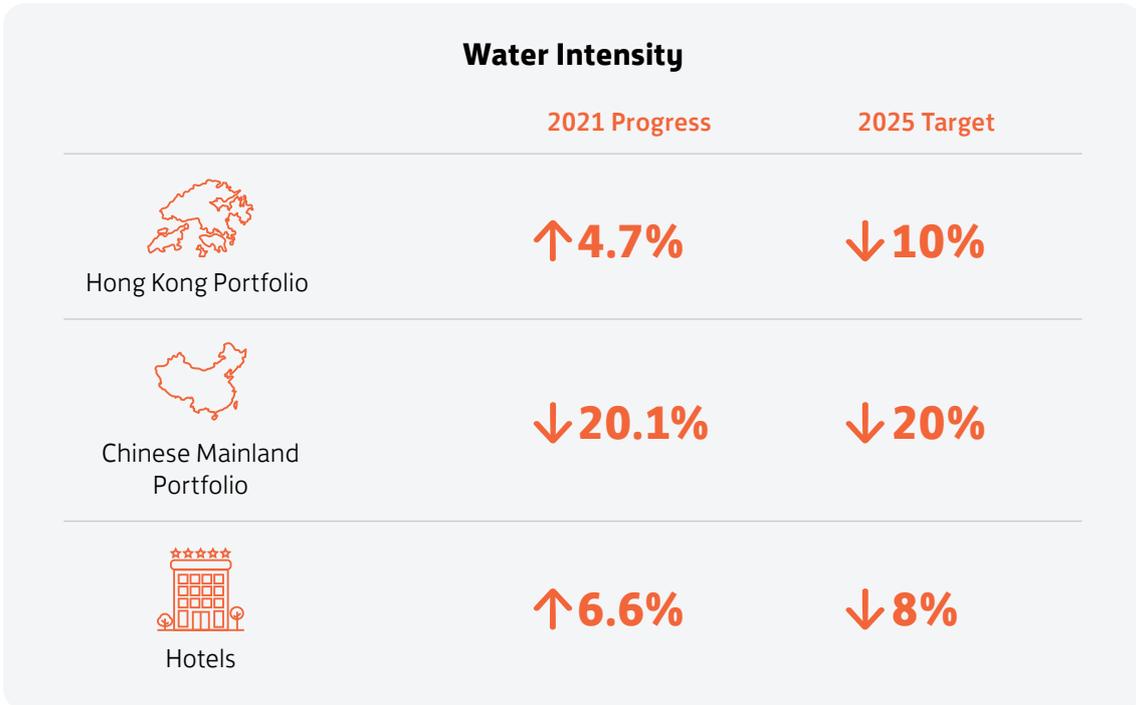
In our hotels, the water intensity in 2021 has increased by 6.6% as compared to the 2018/2019 baseline used for our 2025 KPI. This increase is attributed to the reduced number of guest nights when compared to the baseline, since travel and tourism have been greatly impacted by COVID-19.

Total Water Use and Water Intensity of Portfolios 2017-2021



Performance (Environment)

Policies Progress **Profile of Environmental Impacts** Climate Change
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
 Building/Asset Investments

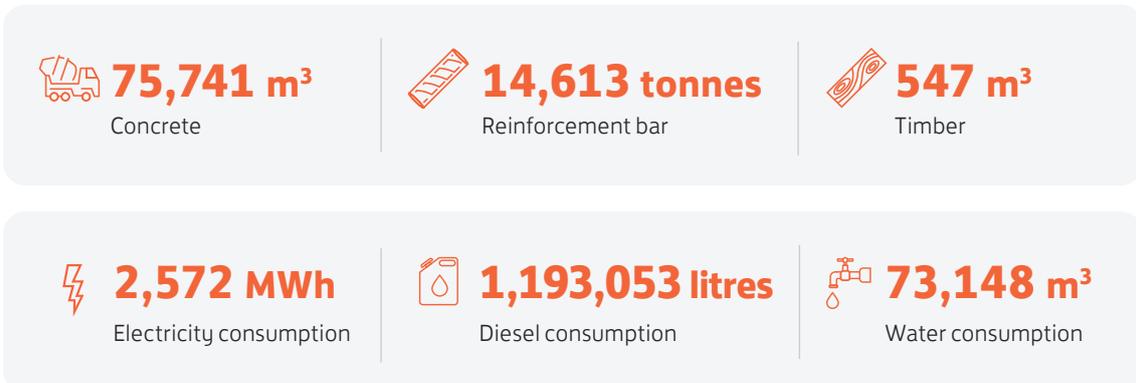


Remarks:

- Our Hong Kong portfolio refers to our office and retail portfolios in Hong Kong, excluding hotels; our Chinese Mainland portfolio refers to our office and retail portfolios in the Chinese Mainland, excluding hotels; our U.S.A. portfolio refers to our retail portfolio in the U.S.A., excluding hotels.
- The water intensity reduction targets set for our Hong Kong portfolio and Chinese Mainland portfolio reference 2016 as the BAU water consumption baseline year.
- The water intensity reduction targets set for our hotels reference 2018/2019 as the water consumption baseline year.
- The 2018 total water use and water intensity of our U.S.A. portfolio has been adjusted to exclude tenants' water use.

Materials Used

By Projects Under Development in 2021



Remarks:

- Projects under development refers to projects that are under construction or in the pre-certification stage.
- Includes investment properties under development in all portfolios, including joint venture and non-joint venture projects.
- "Diesel consumption" includes biodiesel consumption

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change**
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Climate Change

We recognise that climate change poses significant risks and also presents significant opportunities to our business. We are firmly committed to reducing climate impacts and optimising resource efficiency throughout our operations.

We are responding to the Climate Change focus area through initiatives on mitigation, adaptation and resilience. The relevant SDG is:



SDG 13

Taking urgent action to combat climate change and its impacts.

Our [Climate Change Policy](#) outlines our commitment to managing climate risks across our operations and to developing mitigation, adaptation and resilience strategies to address those risks in line with global best practices.

GRI
305

HKEX
Aspect A1, A2,
A3, A4
KPI A1.5, A3.1, A4.1

First Real Estate Developer in Hong Kong and the Chinese Mainland to Have New 1.5°C-Aligned Science-Based Targets (“SBTs”) Approved

The latest report by the Intergovernmental Panel on Climate Change (“IPCC”) states that to limit global warming to 1.5°C above pre-industrial levels and avoid the most catastrophic impacts of climate change, the world must halve CO₂ emissions by 2030 and reach net-zero CO₂ emissions by 2050.

Swire Properties has accelerated our efforts to fight climate change by setting new Paris Agreement-aligned SBTs that are approximately 50%²⁷ more aggressive than our original 2°C-aligned SBTs that were approved in 2019. These new targets were officially approved in September 2021, making us the first real estate developer in Hong Kong and the Chinese Mainland to achieve this milestone.

Swire Properties is committed to reducing our absolute Scope 1 and 2 GHG emissions and strengthening these with Scope 3 reduction targets for our value-chain emissions (upstream and downstream).

Our approved SBTs that align with the 1.5°C-aligned Decarbonisation Pathway are:

	Scope 1 & 2 (Operational GHG Emissions)	Scope 3 (Indirect Upstream & Downstream GHG Emissions)
2025	<ul style="list-style-type: none"> Reduce absolute GHG emissions by 25% (compared to the 2019 baseline) 	N/A
2030	<ul style="list-style-type: none"> Reduce absolute GHG emissions by 46% (compared to the 2019 baseline) 	<ul style="list-style-type: none"> Reduce GHG emissions from capital goods (embodied carbon emissions of new development projects) by 25% per sqm (compared to the 2016-2018 baseline) Reduce GHG emissions from downstream leased assets (tenant carbon emissions) by 28% per sqm (compared to the 2018 baseline)

²⁷ Calculated based on the comparison between the absolute GHG emissions of the original 2°C-aligned SBTs and newly approved 1.5°C-aligned SBTs

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change**
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



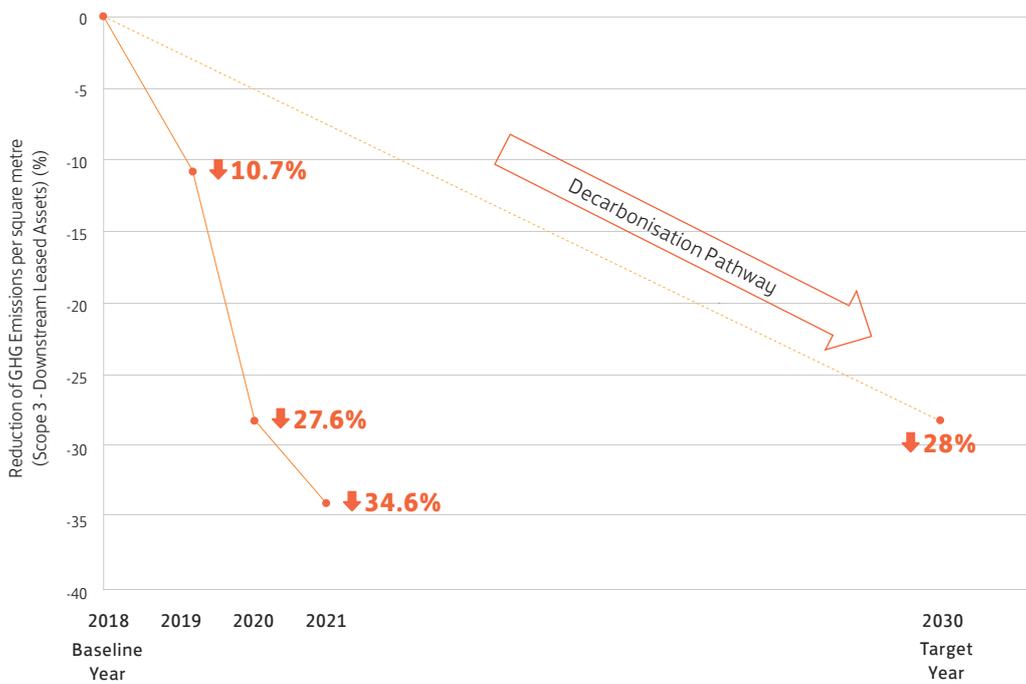
Making Steady Progress Towards Our Science-based Targets

In 2021, we continued to make steady progress towards meeting our new SBTs:

2021 progress against SBT Scope 1 and 2 targets for 2025 and 2030



2021 progress against SBT Scope 3 – Downstream Leased Assets target for 2030*



* Our progress against the SBT Scope 3 – Capital Goods target will be reported upon the completion of Two Taikoo Place in 2022.

Performance (Environment)

Policies Progress Profile of Environmental Impacts **Climate Change**
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
 Building/Asset Investments



Scope 1 and 2 Emissions

In 2021, Swire Properties achieved a 23% absolute carbon reduction compared to the 2019 baseline for our global portfolio. Throughout the year, we continued to adopt innovative low-carbon technologies and [management practices](#) and invest in energy research and development as part of our ongoing partnership with Tsinghua University.

We also reviewed and defined our [energy-reduction targets](#) and mapped out action plans and strategies for individual portfolios to support the new 1.5°C-aligned SBTs over the next decade. The respective financial requirements were also incorporated into the annual budgeting process.

As of 1 July 2021, the entire Taikoo Hui development became powered by 100% renewable electricity, generated via off-site wind power. This reduces Taikoo Hui’s annual CO₂ emissions by over 12,000 tonnes, and makes the portfolio net-zero carbon in annual electricity consumption for both landlord and tenant operations.

Swire Hotel’s The Temple House in Chengdu also became powered by 100% renewables as of January 2021. As of the end of 2021, we increased our mix of renewable electricity in all our Chinese Mainland portfolios to approximately 47%.

Scope 3 Emissions – Downstream Leased Assets

A 34.6% reduction was recorded in 2021. This is attributed to:

- Tenant operations in Taikoo Hui and Sino-Ocean Taikoo Li Chengdu becoming powered by 100% renewable electricity in 2021 and 2020 respectively
- Improvements in tenants’ energy use intensity
- Remote working arrangements for some tenants’ employees due to the COVID-19 pandemic

In 2021, we worked closely with commercial tenants to reduce their carbon footprints through several tenant engagement activities, including:

- Free energy audits that help tenants identify energy-saving opportunities. These have been ongoing since 2008,
- The Green Kitchen Initiative, which provides sustainable design and operation guidelines to F&B tenants. These guidelines help them use less energy and water, and encourage them to reduce waste, and
- The Smart Waste Reduction Pilot Programme, a Hong Kong office tenant initiative launched in 2021 that uses technology to track and gamify the waste reduction journey

Performance (Environment)

Policies Progress Profile of Environmental Impacts **Climate Change**
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
 Building/Asset Investments



Scope 3 Emissions – Capital Goods

To measure and analyse the upfront embodied carbon of a new development project, we have adopted various tools and types of software, including the Construction Industry Council's ("CIC") Carbon Assessment Tool. These allow us to evaluate a project's carbon performance against our established SBTs. The results also help us compare the carbon performance of various possible design options, allowing us to support structural optimisation and low-carbon material adoption from the early design stages.

To reduce embodied carbon emissions throughout the lifecycle of our developments, we have established performance-based targets on embodied carbon for concrete, rebar and structural steel for future projects in Hong Kong. These targets were informed by comprehensive market research and communications with industry associations such as the Construction Industry Council.

Since 2020, we have included low-carbon procurement specifications – developed in accordance with international standards such as ISO 14067 – for construction materials such as concrete with pulverised fuel ash ("PFA") or ground granulated blast furnace slag ("GGBS"), rebar and structural steel with recycled content.

In 2021, we continued to work closely with our contractors and suppliers to procure these low-carbon building materials and foster better energy management at our construction sites – including Two Taikoo Place and the Company's upcoming office building on Queen's Road East.

Swire Properties is the first real estate developer in Hong Kong to contractually require low-carbon building materials for new projects. We are now exploring this practice for Chinese Mainland developments as well.

Our progress against the SBT Scope 3 – Capital Goods target will be reported upon the completion of Two Taikoo Place in 2022.

SBTi Net-Zero Standard

This year, we were also one of the pilot companies involved in road-testing the SBTi Net-Zero Standard, supporting the SBTi as it develops the first science-based global standard for companies to set credible net-zero targets in line with a 1.5°C future. During this process, we gathered useful insights on the challenges and opportunities involved in setting near-term and long-term science-based targets to reduce value chain emissions and align with climate science.

Performance (Environment)

Policies Progress Profile of Environmental Impacts **Climate Change**
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
 Building/Asset Investments



The Swire Properties Climate Risk Assessment



Our comprehensive climate risk assessment identifies the key risks posed by climate change to our business operations and the business opportunities that may arise from new climatic conditions.

Physical Risk Assessment

This consists of asset-level modelling of both the acute and chronic physical risks associated with various climate scenarios, presented in selected timeframes from the immediate term to the distant future – 2030, 2050 and 2100. It also includes detailed asset-level assessments that evaluate individual buildings’ degree of sensitivity and adaptive capacity to the potential effects of the identified climate risks.

The analysis identified that overall, there are low to moderate levels of risk for flooding, heat stress, water stress, and extreme wind for our global portfolio in all assessed climate scenarios. These risk levels are attributed to the relatively robust adaptive capacity and mitigation measures we have integrated into our buildings.

We also identified short- and mid-term measures for individual buildings to mitigate risks and build resilience across our portfolios. Examples include:

- Upgrading flood protection measures and alert systems
- Improving chiller efficiency
- Regularly inspecting glass façades
- Installing smart monitoring systems

Some of these resilience measures will also be incorporated into the planning and design stages of new developments to ensure our assets will continue to be resilient under different future climate scenarios.

Assessment of Transition Risks and Opportunities

This is a comprehensive review of global, national and local government policies, including Hong Kong’s Climate Action Plan 2050, released in 2021, as well as regulatory, market and technological trends based on different climate scenarios involved in the global transition to a low-carbon economy.

Performance (Environment)

[Policies](#) [Progress](#) [Profile of Environmental Impacts](#) **Climate Change** [Occupant Wellbeing](#)
[Energy](#) [Resource and Circularity](#) [Water](#) [Biodiversity](#)
[Building/Asset Investments](#)



We identified a number of risk and opportunity drivers that may have a financial impact on our business under three different climate scenarios: the “Net-Zero Scenario” (1.5°C); the “Paris Consistent Scenario” (2°C); and the “Hot House World Scenario” (3°C). The drivers include tightened building energy codes and guidelines, increased market demand for green and energy efficient properties and climate resilient properties.

Based on the analysis, our current business and sustainability strategies will allow us to effectively manage the identified transition risks and capture the identified opportunities during the transition to a low-carbon economy. These strategies include:

- 1.5°C-aligned science-based targets to drive long-term carbon reduction
- Investment in, and development of, certified green buildings with best-in-class energy efficiency and climate resilience
- Investment in renewable energy measures throughout our portfolio
- Wide application of innovative green technologies
- Commitment to green financing
- Engaging our supply chain, tenants and other relevant stakeholders in climate resilience and sustainability initiatives

During the year, we also initiated a quantitative assessment of the potential financial impacts of key identified transition risks and opportunities that will inform our risk management and strategic planning. For more information, please refer to our [Climate-related Financial Disclosures](#).

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Designing for Climate Resilience



With the impacts of climate change becoming more apparent, it is increasingly important to incorporate climate mitigation measures into the design phase of projects. Our new Savyavasa development in Jakarta has a number of flooding-related mitigation measures – these are crucial in Jakarta, as the low-lying city is more prone to frequent flooding.

We have adopted targeted measures both on-site and in the surrounding area, including:

- “Above and beyond” flood level design: L1 of the development is designed to be one metre above the projected flood level, which is considered an effective measure against flooding.
- A 45% greenery ratio: This provides a higher soil “soak away” rate, especially during periods of high rainfall. The design also includes permeable flooring materials for the tennis court and jogging track, and a soil depth of three metres allows larger trees to be planted and rainwater to be absorbed faster.
- Soak wells and soak pits around the site: These act as “water tanks” during rainy days, collecting rainwater within the site and allowing it to soak away. This controls the rate at which rainwater is discharged into nearby public canals, ensuring that the canals are not overwhelmed.
- The condition of the existing canal around the Savyavasa site affects the amount of rainfall discharged downstream. Upgrades are currently being made at the canal to improve the water flow for better sanitation and drainage conditions.
- A circular pipe is being built at the canal’s lowest point to improve sanitation during the dry season, while garbage traps are being installed at canal inlet and discharge points on the site, filtering out garbage and maintaining the cleanliness of the canal.

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change**
- Energy
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Taking Action to Preserve the Miami Coastline



In January 2021, The United States Army Corps of Engineers (“USACE”) proposed a plan to address the increasing risk of storm surges and a sea level rise in Biscayne Bay and the Miami downtown area, both of which are in close proximity to Swire Properties’ Brickell City Centre development. While the proposal met the engineering criteria, the solution

risksed compromising the functionality and future appearance of the waterfront.

Swire Properties engaged an engineering firm to research, design and propose a hybrid and more natural long-term environmental solution to preserve Miami’s urban coastline. Formally presented in February 2021, the plan envisions a series of barriers to dissipate wave energy including a combination of submerged oyster reefs and flood protection earthen berms in the Bay. This plan, which also meets engineering criteria, has provided a platform for municipalities to discuss viable nature-based solutions as an alternative to physical barriers against flooding.

The benefits of this plan include having both a functional and aesthetic appeal; being built to tackle extreme weather events of the next 30 to 50 years – as sea levels rise, governments can add additional layers to the barriers; being cost effective due to its high adaptability; and having multiple interventions, which is better from a risk perspective.

Taking the proposed solution into consideration, Miami-Dade County rejected the current flood wall plan, meaning the USACE and the County will now work with communities to develop a locally preferred plan that will include nature-based solutions to enhance climate resilience.

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Becoming Part of the BEC Low Carbon Charter Power Up Coalition



In 2019, the Business Environment Council (“BEC”) launched its Low Carbon Charter to mobilise businesses towards Hong Kong’s long-term decarbonisation, with Swire Properties pledging its support to set and achieve science-based carbon reduction targets.

As a supporting initiative, the BEC launched a new “Power Up Coalition”

in 2021, designed to facilitate early connection of construction sites to mains electricity. Swire Properties was one of the first to sign the Power Up Pledge, which is a commitment to optimise electricity use and avoid the use of diesel generators and other high-emission electricity sources. As a signatory, we have agreed to lead by example – sharing knowledge and best practices, collaborating to deliver early electricity to construction sites and promoting Power Up to the wider business community.

We also agreed to pursue the following on-site decarbonisation opportunities at our construction sites, when possible:

- Transition to becoming 100% diesel generator-free
- Wider use of mass battery energy storage
- Provide EV charging infrastructure
- Provide of electricity / battery energy storage system (BESS)
- Improve energy efficiency and drive behavioural change
- Support in further electrification and greater use of plants and equipments that are powered by electricity
- Use of lower carbon alternative fuels where electrification is not possible, including biodiesel, natural gas or hydrogen
- Install renewable energy systems
- Use green finance to support options mentioned above

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change
- Energy**
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Energy

We strive to continually reduce the consumption of energy in our Hong Kong and Chinese Mainland portfolios and in our hotel operations. In 2021, we adopted a variety of technologies and strategies to achieve this objective.

Some of our properties generate renewable energy on-site, using it for operations and in one case, feeding power back into the electricity grid. The relevant SDG is:



SDG 7

Ensuring access to reliable and sustainable energy.

GRI 302

HKEX KPI A1.5, A2.3, A3.1

Renewable Energy



On-site Renewable Energy Generation

One of our 2025 KPIs is to generate 4-6% of the landlord's building energy from renewable or clean energy sources in selected new office developments. At Two Taikoo Place, we will install solar PV panels, a wind turbine and a waste-to-energy tri-generation system, which we estimate will supply renewable

energy equivalent to approximately 6% of the landlord's building energy.

We continue to explore other ways of increasing on-site renewable energy generation across our portfolio, such as installing solar PV panels on the roofs of existing developments like INDIGO, Taikoo Hui and Taikoo Li Sanlitun. We installed additional high efficiency solar PV panels at INDIGO in 2019, while PV panels will be installed on Taikoo Place buildings in phases. In early 2022, we completed the installation of a 65 kW PV system at Dorset House.

Our newest residential project, EIGHT STAR STREET, is also the Company's first residential project to adopt solar PV panels. These will generate an estimated 2,110 kWh of renewable electricity annually. This marks an important step forward for our residential projects.

Renewable Energy Generated in 2021

196,600 kWh

INDIGO

35,100 kWh

Taikoo Hui

7,200 kWh

Taikoo Li Sanlitun

179,600 kWh

One Taikoo Place

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change
- Energy**
- Resource and Circularity
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Off-site Renewable Energy Procurement

Since July 2021, the entire Taikoo Hui development – including the shopping mall, two office towers and the hotel – has been 100% powered by renewable electricity, generated via off-site wind power and purchased from a third party. This became possible due to a policy introduced by the Guangdong Provincial Government in June 2021, which allows enterprises to procure renewable electricity from a registered energy provider.

Swire Properties is one of the first real estate developers in Guangdong Province to accomplish net-zero carbon in its annual electricity consumption for landlord and tenants’ operations. This milestone will allow Swire Properties to reduce Taikoo Hui’s annual CO₂ emissions by over 12,000 tonnes and increase its mix of renewable electricity in the Chinese Mainland to approximately 47%.

Renewable Energy Purchased in 2021

15,219,000 kWh

Taikoo Hui

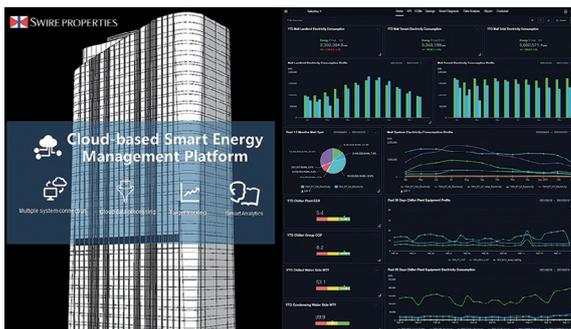
10,965,700 kWh

Sino-Ocean Taikoo Li Chengdu

5,146,100 kWh

The Temple House

Smart Energy Management Platform



Co-developed with Schneider Electric, our cloud-based smart energy management platform was launched in 2019 and is being rolled out in phases. Currently implemented at Taikoo Place, Pacific Place, Cityplaza, Taikoo Hui, INDIGO and Sino-Ocean Taikoo Li Chengdu, the platform will ultimately be used in all our Hong Kong and Chinese Mainland properties.

Utilising the Internet of Things, big data analysis, artificial intelligence and cloud computing, the platform leverages building operations data to generate energy management and energy saving insights.

At Cityplaza, the platform was combined with digital twin technology to create a digital representation of the mall, allowing us to identify more energy management opportunities. Thus far, the system allowed Cityplaza to save over 200,000 kWh of energy between June and September 2021 – equivalent to the monthly electricity consumption of 500 typical four-person households.

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
 Building/Asset Investments



Energy-saving Strategies

We strive to continually reduce the consumption of energy in our Hong Kong and Chinese Mainland portfolios and in our hotel operations. In 2021, we used a variety of technologies and strategies to achieve this objective.

Our tenants’ electricity consumption accounts for approximately 50-60% of our total building energy consumption. We work closely and continuously with our tenants to help them reduce their electricity use – for example, by conducting [free energy audits](#) to identify opportunities for improvement.

Implementation of Cloud-based Smart Energy Management Platforms to Track and Optimise Energy Consumption

- Taikoo Place
- Pacific Place
- Cityplaza
- Taikoo Hui
- INDIGO
- Sino-Ocean Taikoo Li Chengdu

Retro-commissioning of HVAC Systems and Energy Audits to Improve Heating and Cooling Efficiency

- Cityplaza
- HKRI Taikoo Hui
- The Middle House

Upgrading of HVAC Air Handling Units; Replacement of Conventional Fans with Electronically-commutated Motor Plug Fans to Increase Efficiency and Reliability

- Taikoo Place (estimated annual energy savings: 583,800 kWh)
- Pacific Place (estimated annual energy savings: 33,000 kWh)
- Cityplaza Mall (estimated annual energy savings : 63,000kWh)
- Citygate Mall (estimated annual energy savings: 26,000kWh)
- Taikoo Hui (estimated annual energy savings: 100,000 kWh)

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Carpark Ventilation Upgrade to Electronically Commutated Motor Plug Fans to Increase Efficiency and Reliability

- Pacific Place Carpark (estimated annual energy savings: 500,000 kWh)

Air-conditioning Renovation – Converting a Decentralised Heat Pump System to a Centralised Cooling and Heating Energy Plant

- Taikoo Li Sanlitun (estimated annual energy savings: 3,000,000 kWh)

HVAC Air-side Optimisation Through Smart Diagnosis

- HKRI Taikoo Hui (estimated annual energy savings: 278,000 kWh)

Replacement of a High-efficiency Air-cooled Chiller

- Berkshire House (estimated annual energy savings: 249,000 kWh)

Installation of Variable Speed Drives for Water Pumps

- Two Pacific Place - secondary chilled water pumps (estimated annual energy savings: 70,000 kWh)
- Three Pacific Place - condensing water pumps (estimated annual energy savings: 86,000 kWh)
- Cityplaza - condensing water pumps (estimated annual energy savings: 300,000 kWh)
- 28 Hennessy Road - condensing water pumps (estimated annual energy savings: 32,000 kWh)

Replacement of Lighting with Energy-efficient Light Emitting Diodes to Improve Efficiency and Reduce Cooling Loads

- Cityplaza Mall (estimated annual energy savings: 242,000 kWh)
- The Middle House (estimated annual energy savings: 25,000 kWh)
- The Temple House (estimated annual energy savings: 15,000 kWh)

Lift and Escalator Modernisation

- One Pacific Place and Two Pacific Place (estimated annual energy savings: 300,000 kWh)
- Cityplaza (estimated annual energy savings: 50,000 kWh)

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Continuing our Collaboration with Tsinghua University



Since 2011, we have worked with Tsinghua University through the Joint Research Centre for Building Energy Efficiency and Sustainability to develop and test new methods to increase energy efficiency and improve environmental performance in our projects. This collaboration continues to generate substantial energy savings and allows us to share new ideas and practices with our

employees, business partners, industry peers and other researchers.

We extended this partnership for another three years in May 2019. Together, both teams are working to push the boundaries of traditional building management by developing new artificial intelligence (“AI”) technologies, improving IAQ control measures, increasing the generation and use of renewable energy, and other measures to make our portfolios even more energy efficient and sustainable.

In 2021, highlights of our partnership included:

- Energy audits and identification of energy management opportunities at The Middle House, Shanghai.
- Development of AI technologies for plant optimisation and smart facility management.
- Development of water-saving strategies for condensing water systems.
- DC microgrid guideline development and pilot project design review.
- Developing an accounting tool for measuring the whole lifecycle carbon emissions of a new development project.

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Direct Current Microgrids – Harnessing and Producing Green Power



Given the increase in both on-site and off-site renewable energy in our properties, there is a growing need to explore more efficient ways to utilise solar and wind energy, since their supply is more variable and weather dependent. One innovative solution involves a direct current microgrid – a “power cluster”, where distributed generation, load and energy storage devices exist in close proximity. This

would see on-site solar PV panels located next to battery storage and fuel cells.

Direct current microgrids have also been proposed as a solution by the Chinese government in the latest “Action Plan for Carbon Dioxide Peaking Before 2030” document.

Responding to this new technology, Swire Properties is piloting this solution at Taikoo Li Sanlitun, using funding from the [Swire Pacific SD Fund](#). This breakthrough solution is set to launch in 2022 at selected locations and is expected to reduce carbon emissions by 10% compared to conventional energy generation systems.

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Taking on the BE305 Challenge in Miami



In March 2021, the Swire Properties Operations team in Miami, U.S.A. entered the Business Efficiency 305 Challenge (“BE305”). Initiated by the Miami-Dade County in Florida, the contest challenged companies across the county to reduce electricity and water consumption by 25% against a 2019 baseline by the year 2026.

Throughout 2021, the team took steps to meet these targets, including:

- Replacement of traditional lighting with LEED-recommended lighting.
- Installation of a lighting management system that provides full timed control of the entire lighting system.
- Installation of an energy management system that allows the team to focus on and understand areas of high-power consumption.
- Replacement of the irrigation system with high-efficiency time clocks and valves that have reduced irrigation leaks and waste by approximately 15%.
- Installation of automatic water valves on cistern tanks, increasing rainwater utilisation by approximately 30%.

When annualised, electricity bills site-wide have been reduced by 3.1 million kWh or 20% compared to 2019. Water consumption has also been reduced by 7% compared to 2019, saving a total of 17,312 m³. The Miami team is confident it can reach the BE305 targets in advance of the 2026 target year.

These reductions were particularly noteworthy as they were achieved when the portfolio added four new F&B outlets (typically large water consumers) and experienced an increase of visitor traffic of 5.5% compared to 2019.

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change
- Energy
- Resource and Circularity**
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Resource and Circularity

We are committed to supporting the transition towards a circular economy by reducing and managing waste effectively and promoting circularity across our operations. We aim to identify the impacts of waste disposal from our business activities, set targets to continually improve our waste management performance and incorporate waste-prevention considerations into our procurement processes.

GRI
306

HKEX
Aspect A1, A2, A3
KPI A1.6, A3.1

Focusing on Resource Management and Circularity

In 2017, we developed our Waste Management Policy to guide our approaches to reducing waste, from the design and construction phases of our projects to the daily operation and management of our buildings.

In 2020, Swire Properties began to review this policy to highlight the value of rethinking resource use and promoting circularity. This year, we announced our [Resource and Circularity Policy](#), putting greater emphasis on “designing out” waste and keeping products in use while continuing to enhance resource recovery and recycling across our operations.

Reframing waste in the context of resource use and management encourages our employees, tenants, suppliers, and others with whom we do business to engage with the topic with greater positivity and creativity before resources are consumed. This approach supports our transition to a circular economy, and our goal to achieve zero waste to landfill by 2050. The emphasis on circularity will also help prepare the Company and our tenants for future waste-related legislation, such as the compulsory garbage sorting legislation that has been introduced in major Chinese Mainland cities and the upcoming municipal solid waste charging legislation in Hong Kong.

Our Resource and Circularity Taskforces in Hong Kong and the Chinese Mainland – made up of representatives from our technical services and sustainable development department, portfolio management teams and hotels – meet regularly to evaluate our resource management strategies, analyse waste data, review progress towards our 2025 and 2030 KPIs, and facilitate new circularity initiatives.

Waste Diversion Rates

We track and collect data on more than 20 types of waste produced by our office and retail tenants, hotel guests and occupants of our residences. We strive to manage the downstream processes of each waste stream and work closely with recycling partners to provide secure outlets for the recyclables we collect.

23.6%

Commercial waste diversion rate in our Hong Kong portfolio

41.6%

Commercial waste recycling rate in our Chinese Mainland portfolio

Total Amount of Waste Recycled

3,340 tonnes

Hong Kong portfolio

9,394 tonnes

Chinese Mainland portfolio

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Recycling and Repurposing Food Waste



Food waste is a significant component of the waste sent to landfill in Hong Kong. Since 2005, when we installed our first food decomposer at one of our Hong Kong shopping malls, we have been working with our hotels, restaurants and tenants to deepen our food waste reduction and recycling efforts. In 2021, we collected more than 9,200 tonnes of food waste from our Hong Kong and Chinese Mainland

portfolios and our hotels, an increase of 25% compared with 2020.

In Hong Kong, Swire Properties leveraged a programme funded by the government’s Environment and Conservation Fund to promote food waste recycling amongst our tenants. In 2021, 70% of our F&B tenants in Citygate Outlets, Cityplaza, Island Place Mall, Pacific Place, and Taikoo Place participated in our food waste recycling programme; while the number of tenanted office floors recycling food waste also increased by over 30% compared to 2020.

The majority of the food waste collected in Hong Kong is delivered to the government’s O · PARK1 for conversion into compost and biogas. In November this year, we invited a group of employees and tenants to visit O · PARK1 to better understand the downstream treatment of the food waste they recycle in their everyday work lives.

This year, we also introduced new initiatives to repurpose food waste into useful products. EAST Hong Kong partnered with a local brewery to turn 30kg of surplus bread from its restaurants into its own branded craft beer. In support of the United Nations’ International Day of Awareness of Food Loss and Waste, we also ran two “Ugly Fruit” jam-making workshops with a local food rescue NGO to raise awareness about the global food waste problem.

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
 Energy **Resource and Circularity** Water Biodiversity Occupant Wellbeing
 Building/Asset Investments



Engaging Employees and Tenants with Smart Waste Technology



Over 90% of the waste generated at our buildings comes from building users such as our tenants. In 2021, we introduced the Smart Waste Reduction Challenge, a first in Hong Kong, using smart scales and a digital engagement platform to “gamify” the collective sustainability journey experienced by our employees and tenants. The challenge involved 15 participating teams drawn from 10 office tenants across Taikoo Place,

Pacific Place and Citygate as well as the Company’s own offices. The teams engaged 3,400 employees in a six-month workplace waste reduction challenge.

The participating teams:

- Received recommendations on how to optimise the design and layout of their office waste bins.
- Replaced individual desk-side rubbish bins with centralised collection and sorting stations.
- Fitted smart scales under each bin to collect live waste disposal and recycling data.
- Set up display screens to showcase their waste reduction progress in real-time and benchmark this progress against other teams.

Throughout the challenge, we organised online and offline engagement activities to support participating teams in their waste reduction efforts. These included:

- 7 sessions of digital workshops to learn about proper waste sorting and food waste reduction.
- 4 tenant project forums where tenant green teams could share ideas and talk about the challenges they were experiencing.
- A “Waste? No More!” recycling game booth roadshow that reached over 250 employees across Swire Properties’ five participating offices.

At the end of the pilot, the teams with the best waste reduction progress and with the most proactive employee participation were recognised with awards.

Collective Impact of the Challenge

14%

reduction in total waste per employee*

41%

waste diversion rate achieved

* As compared to the first full-month data recorded at the beginning of the challenge.

This pilot was supported by the [Swire Pacific SD Fund](#). In the future, we will continue to explore the use of smart technologies to monitor tenant waste generation and tailor our tenant-facing circularity initiatives accordingly.

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Prioritising Waste Reduction at Our Hotels



In addition to ongoing efforts to reduce and recycle waste, we continue to engage our hotels to develop new sustainability initiatives.

Aligned with our [Green Kitchen Initiative](#), Swire Hotels and Swire Restaurants work closely with their design teams and contractors to incorporate recommendations in the Green Kitchen Technical Guidelines, such as adopting energy and water

efficient appliances, as well as reserving sufficient space for food waste and glass bottle recycling bins. In 2021, eight F&B outlets in our Hong Kong and Chinese Mainland hotels received the Green Kitchen Award, with seven achieving the highest possible “Three Leaf” rating.

To promote the circular use of resources, we are prioritising waste prevention and reduction in a number of ways, including:

- EAST Hong Kong, EAST Beijing and The Upper House retrofitted over 800 rooms with an in-room water filtration system, eliminating the need for plastic bottled water in rooms, which will help avoid the use of over 16 tonnes of plastic bottles each year.
- EAST Beijing has made check-in and check-out processes completely paperless.
- EAST Hong Kong receives food orders through a digital menu accessible with a QR code, a contactless solution reducing about 70% of menu paper usage in the restaurant and bar department.
- FEAST at EAST Hong Kong installed sensor-enabled refrigerators, whereby the doors shut automatically when no customers are around. This keeps food fresh for a longer period and reduces spoilage.

We will continue to identify ways to design out waste in our hotel operations and provide customers with a sustainable experience.

Performance (Environment)

- Policies
- Progress
- Profile of Environmental Impacts
- Climate Change
- Energy
- Resource and Circularity**
- Water
- Biodiversity
- Occupant Wellbeing
- Building/Asset Investments



Supporting a Circular Economy for Plastics



The COVID-19 pandemic has brought about a surge in single-use tableware and packaging in the communities where we operate. In 2021, we continue to expand initiatives to promote reuse and support the recovery of single-use plastics.

In November 2020, we partnered with a start-up company to launch Hong Kong’s first smart reusable cup

concept and network at Taikoo Place. In 2021, the initiative expanded to a total of eight food and beverage outlets across the portfolio. We also began washing and sanitising the cups at a Swire Hotels outlet, fully “closing the loop” within Taikoo Place. Since its launch, the smart reusable cup system has helped avoid the disposal of over 12,000 single-use coffee cups.

We also worked with our industry and recycling partners to facilitate the recovery of plastic beverage bottles and recycling them into food-grade raw materials. In 2021, we continued to place reverse vending machines at The Loop in Taikoo Place and at Three Pacific Place, collecting more than 255,100 plastic bottles during the year for recycling. We also began placing dedicated plastic bottle recycling bins around Taikoo Place to support the concept of separating waste at its source.

In September, we relaunched the “Save Your Plastics” campaign at Starstreet Precinct. This campaign provided lifestyle and F&B rewards to people who recycled their cleaned and emptied plastics. In less than three weeks, this recycling pop-up collected over 500 kg of plastics from 700 members of the community.

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
 Energy Resource and Circularity **Water** Biodiversity Occupant Wellbeing
 Building/Asset Investments



Water

We monitor water consumption in our buildings and utilise water-saving mechanisms such as water meters, water flow regulators, automatic taps and automatic flush toilets and urinals. In 2021, we signed on to the Enterprises Cherish Water (“ECh₂O”) campaign, organised by an environmental NGO and the Hong Kong government’s Water Supplies Department.

We regularly encourage our employees and tenants to save water. We also urge our tenants to have in place internal guidelines on fresh and flushing water, as these help us comply with enhancements to the Hong Kong government’s voluntary “Quality Water Supply Scheme for Buildings”.

We aim to manage water risk and reduce overall water consumption under the Water focus area. The relevant SDGs are:



SDG 6

Ensuring availability and sustainable water management.



SDG 12

Ensuring sustainable consumption and production patterns.

GRI
303

HKEX
Aspect A2
KPI A2.4, A3.1

Water Policy

Our [Water Policy](#) focuses on reducing our water consumption intensity. Pursuant to this policy, we aim to design and implement efficient water management measures across our operations and encourage our employees and tenants to consume water responsibly, among other action items.

Water Recycling

Several of our properties have grey water treatment and recycling systems in place. The system at Oxford House at Taikoo Place collects, treats and reuses pantry wastewater from office tenants for cleaning purposes, at an annual recycling volume of 300m³. Several Chinese Mainland properties including Taikoo Hui, INDIGO, Sino-Ocean Taikoo Li Chengdu and HKRI Taikoo Hui have installed systems to collect and treat wastewater and rainwater for toilet flushing and plant irrigation. One Taikoo Place also has a rainwater collection system that collects rainwater which is then recycled and used to irrigate the gardens and green spaces at Taikoo Square and around One Taikoo Place.

We continued to explore any opportunities to save water this year, whether by upgrading or changing maintenance procedures for our equipment, or through new practices in our daily operations. In addition to running a trial programme where we adjust the cleaning schedule for cooling towers, this year we also partnered with Tsinghua University to begin a study of how our usage of cooling tower water consumption could be optimised. Using simulations, the study will analyse water use patterns and generate suggestions for optimal practices in different portfolios. We are also in the early stages of exploring the concept of water neutrality, with a view to properly defining the concept as it applies to the Company so we may begin to use it in our operations.

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Water-Saving Pilot Scheme



In mid-2020 we launched a Water Saving Pilot Scheme to promote water efficiency and raise awareness about the importance of conserving water. This pilot concluded in August 2021. Fourteen office tenants participated in the scheme, which involved installing water efficient fittings and wireless water sub-meters to monitor water consumption on their premises to help us understand water

consumption behaviour and explore opportunities to reduce water consumption. The scheme received a positive response, and the data collected will be used to inform the development of our Green Performance Pledge. We will also be providing free smart water meters to all our office tenants in the future, beginning with Taikoo Place.

Sustainable Bathrooms at Taikoo Hui



Taikoo Hui in Guangzhou redesigns and renovates one set of bathrooms each year. This year, the bathrooms on the MU level were redesigned using a “sustainable development” theme. The newly renovated restroom is the first public convenience facility in a commercial complex in Guangzhou to be recognised by the Guangzhou Emissions Exchange for outstanding performance in carbon neutrality.

This redesign included a variety of features that reduce water consumption and promote sustainability, including:

- Plentiful indoor greenery.
- Installing water-free urinals with special filtration systems to eliminate odours.
- Installing water-saving toilets that reduce the volume of flushing water from 7 litres to 4.8 litres per flush.

Performance (Environment)

[Policies](#) [Progress](#) [Profile of Environmental Impacts](#) [Climate Change](#)
[Energy](#) [Resource and Circularity](#) **Water** [Biodiversity](#) [Occupant Wellbeing](#)
[Building/Asset Investments](#)



- Using integrated water faucets and hand-dryers to reduce paper use.
- Use of sustainable materials throughout, such as GRG walls and ceilings, composite cement walls, and high-pressure laminated toilet cubicles.

This renovation will result in projected overall water savings of around 2,400 m³ per year.

New Water Leak Detection System at Cityplaza

In tandem with the new wireless platform for IAQ monitoring at Cityplaza, we plan to implement water leakage detection sensors into the same platform to reduce the consequences of water leaks and accelerate remedial or rectification action when dealing with leak incidents. Through early detection in key locations such as plant rooms and tenancy areas, we can act quickly to stop and fix water leaks. This part of the system is expected to be ready by Q2 of 2022.

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
 Energy Resource and Circularity Water **Biodiversity** Occupant Wellbeing
 Building/Asset Investments



Biodiversity

GRI
304

Anchored by our [Biodiversity Policy](#), we integrate biodiversity considerations into our operations and, where relevant, work to minimise any adverse impacts of our operations on biodiversity and ecosystems.

Although the majority of our portfolio is located in urban areas where biodiversity issues are usually not material, we have conducted assessments at all of our existing properties and projects under development to determine the status of biodiversity and its importance to the places that we develop and the surrounding natural environment. These assessments have shown that none of our current properties contain or are located adjacent to areas of globally or nationally important biodiversity.

Taikoo Place Biodiversity Study



Our biodiversity study of the Taikoo Place redevelopment project, completed in mid-2020, aimed to evaluate the state of urban biodiversity after the completion of the redevelopment.

Conducted in partnership with a professor from the University of Hong Kong, the study’s objectives were to:

- Develop a baseline of the urban biodiversity of the current Taikoo Place.
- Evaluate the urban biodiversity after the completion of the Taikoo Place redevelopment project.
- Propose measures in the master landscape plan to further enhance urban biodiversity in the future.

The study also involved an extensive literature review and a baseline survey of biodiversity in the Taikoo Place area. The results revealed that:

- The redevelopment project allowed the creation of a substantial landscaped area, amounting to 35% of Taikoo Place, which is highly beneficial from an urban forestry perspective.
- The inclusion of large-sized native tree species has made Taikoo Place more attractive to urban biodiversity.

In mid-2021, meetings were conducted with project teams and the management offices of all our Hong Kong properties to share the results. These included discussions about local species and biodiversity and emphasised the importance of green corridors that support the movement of birds and butterflies between parks. These suggestions will be integrated into future planning and operations across our Hong Kong portfolio. We have also installed QR codes near trees in both Taikoo Square and Taikoo Garden. These will give visitors more information on individual trees and how they might preserve and promote urban biodiversity.

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Prioritising Biodiversity in Taikoo Place Outdoor Spaces



Part of the Taikoo Place redevelopment involves creating new open space and developing a new character for the landscape. By creating an iconic landscape and designing a planting procedure that promotes biodiversity and biophilic design, we are encouraging visitors to reconnect with nature.

Much effort was put into prioritising biodiversity in Taikoo Square and Taikoo Garden on the site, including:

- Procuring “feng shui woodland” tree species including *Endospermum chinense*, *Sarcosperma laurinum* and *Sterculia lanceolata* seedlings from the local Kadoorie Farm and Botanic Garden that will be planted on site.
- Developing a biodiversity database with technical data on plants such as their botanical names, flowering period and other interesting facts. This database will be compatible with mobile applications such as the Taikoo Social App to provide a virtual “green tour” of the space. The database will also allow long-term monitoring of the biodiversity status of our properties.
- Using active positioning technology such as Bluetooth beacons to interact with visitors’ devices. For example, a visitor standing in front of a specific tree in Taikoo Garden may have their smartphone come alive with facts about the tree and its associated biodiversity and wildlife – creating a fun and engaging experience that promotes biodiversity conservation.

Performance (Environment)

Policies

Progress

Profile of Environmental Impacts

Climate Change

Energy

Resource and Circularity

Water

Biodiversity

Occupant Wellbeing

Building/Asset Investments



Biodiversity Preservation at Rocky Bank



Rocky Bank is a residential redevelopment project involving six existing semi-detached houses being demolished and two luxury detached houses built on the site.

Occupying about one-third of the site area is a natural slope with lush vegetation. A professor from Hong Kong University was appointed to conduct a baseline biodiversity study,

including a plant and animal survey of the site, and offer a design review focusing on assessing the project's ecological impacts.

The study suggested that works should endeavour to keep the site's back slope undisturbed, and that two species of small plants with high biodiversity value discovered on-site should be moved to another location that will not be disturbed by construction works. Subsequently, plant species with high biodiversity value were transplanted, while a more detailed list of plants on-site was developed to ensure the existing biodiversity value was retained. The team also worked to retain as many trees as possible, while also developing a comprehensive strategy for the compensation of lost trees. The next stage involves preparing a full ecological impact reduction report.

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
 Energy Resource and Circularity Water Biodiversity **Occupant Wellbeing**
 Building/Asset Investments



Occupant Wellbeing

We aim to operate and maintain our buildings and workspaces in a way that promotes occupant health and wellbeing. The relevant SDG is:



SDG 3

Ensuring healthy lives and promoting wellbeing.

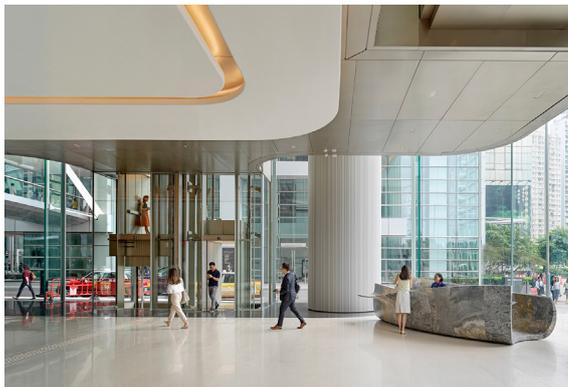
GRI
416

HKEX
Aspect B6
KPI B6.4

On top of numerous physical and mental health and wellbeing considerations, we also design and construct our buildings to enhance visual comfort through the use of natural daylight, glare indices and diverse types of lighting, at the same time minimising the adverse impacts of external lighting, such as sky glow, source intensity and building luminance. We also consider acoustic impacts throughout the design, construction and operational phases of our buildings. In addition, we are gradually installing UVC lamps in the air handling units across our portfolios. As at 31st December 2021, this upgrade has been completed for over 650 units in Taikoo Place to help with sterilisation and improve IAQ.

Apart from monitoring occupant wellbeing in existing buildings, we also incorporate wellness features and initiatives in our new projects.

Continuously Monitoring Indoor Air Quality



This year, we expanded our installation of IAQ sensors in common areas to all buildings at Taikoo Place and Pacific Place. These sensors monitor temperature, relative humidity, CO₂, PM2.5 and PM10 particulates, total volatile organic compounds (“VOCs”) and ozone levels.

Together with central air-conditioning systems with high-quality filtration and fresh air supply features, this system provides comfort and peace of mind to office workers, mall workers and the public. It was installed and implemented with reference to WELL and other stakeholders in real time through [weblinks](#) and QR codes.

The IAQ data is also presented on physical display panels with QR codes in the main lobbies of office buildings in Pacific Place, Taikoo Place and One Citygate.

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
Building/Asset Investments



Building/Asset Investments

As part of our management approach to identify and manage significant impacts of our buildings on the environment and natural resources, we aim to obtain certification for our buildings under environmental building assessment schemes that provide benchmarks and objective standards against which we can measure our performance.

We support green building development as part of the Building/Asset Investments focus area. The relevant SDGs are:



SDG 11

Making cities and human settlements inclusive, safe, resilient, and sustainable.



SDG 12

Ensuring sustainable consumption and production patterns.

Demonstrating and Sustaining Green Building Leadership

We employ an integrated design approach to our projects in accordance with the requirements of several internationally recognised standards and rating schemes, requiring members of our projects and operations teams to work together in areas ranging from building design to construction and operation.

In 2021, Swire Properties achieved another milestone, becoming the first developer in Hong Kong and the Chinese Mainland to join the World Green Building Council’s (“WorldGBC”) Corporate Advisory Board. As part of a select group of global leaders in sustainability, companies who sit on the Corporate Advisory Board serve to guide the WorldGBC in its strategy and activities to accelerate the sustainable building movement.

We also encourage our tenants to participate in environmental building assessment schemes and work closely with them to implement sustainability strategies that will help them to achieve the relevant certifications.

These schemes include:

- **BEAM Plus**, a set of standards recognised and certified by the Hong Kong Green Building Council
- **LEED**, a rating system devised by the United States Green Building Council
- **The China Green Building Design Label**, issued by the Ministry of Construction in the Chinese Mainland
- **WELL**, a certification scheme developed by the International WELL Building Institute

GRI
417

HKEX
Aspect A3, B6
KPI A3.1, B6.4

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing
Building/Asset Investments



Green Buildings as a Percentage of our Portfolio

98%

of wholly-owned existing buildings²⁸ are certified green buildings, of which 88% have achieved the highest ratings.

96%

of all existing buildings²⁹ are certified green buildings, of which 82% have achieved the highest ratings.

100%

of wholly-owned projects under development³⁰ have achieved the highest ratings.

²⁸ “Wholly-owned existing buildings” do not include joint venture projects and trading properties and are measured as the percentage of total GFA.

²⁹ “All existing buildings” includes joint venture projects and trading properties and are measured as the percentage of total GFA.

³⁰ “Projects under development” refers to projects that are under construction or in the precertification stage and does not include joint venture projects and trading properties.

Type and Number of Green Building Certification, Rating and Labelling Schemes

as at 31st December 2021

34

buildings³¹ earned BEAM or BEAM Plus certification, with 27 of those achieving the highest ratings (Excellent or Platinum).

38

buildings earned LEED certification, achieving either Platinum or Gold ratings.

2

mixed-use developments achieved Gold ratings under the LEED for Neighbourhood Development category.

³¹ Refers to buildings that were built after BEAM was established in 1996 and that are either managed or at least 50% owned by Swire Properties. Small-scale, low-rise buildings in the same development are counted as one building and not as individual buildings.

Performance (Environment)

Policies Progress Profile of Environmental Impacts Climate Change
 Energy Resource and Circularity Water Biodiversity Occupant Wellbeing

Building/Asset Investments



Green Buildings Certified in 2021



BEAM Plus

Citygate Lot 2

- Final Gold (New Buildings Version 1.2)



LEED

Taikoo Li Qiantan

- Final Gold (Core and Shell Development Version 2009)



WELL

Taikoo Li Qiantan

- Platinum (Core) v2 Pilot



China Green Building Design Label

One INDIGO

INDIGO Mall

- 2-star
- 2-star