



2022

Environmental, Social and Governance Report

Stock Code: 0008

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ACTING GROUP MANAGING DIRECTOR'S MESSAGE



In 2022, COVID-19 still impacted the way we worked and lived in multiple ways and climate change remained one of the most imminent global threats. As a technology, media and telecommunications leader which has been serving our community for more than 150 years, we further stepped up our risk management and governance while expanding our support to the community in this critical time to safeguard the sustainable development of both our business and community at large.

Led by our Board, we have championed environmental, social and governance ("ESG") as guiding principles for our Corporate strategy, integrated into every aspect of our business. Embracing ESG through a double materiality lens, we have prioritised issues that are both financially material to our company and important to our internal and external stakeholders.

As a technology business, we have placed the utmost emphasis on customer data privacy and protection, while information security and management remained imperative at every level of our organisation. As our customers put their trust in us, we recognised the protection of their information as vital, taking Cybersecurity readiness very seriously to meet the growing challenges.

In terms of the environment, the Group has continued to strengthen its climate resilience through implementing control measures and leveraging technological innovations to safeguard the well-being of our business operations and safety of employees. We remain determined to achieve targets on reducing our electricity consumption, greenhouse gas emissions, water and waste consumption by 2025, in line with the Government's strategic focuses outlined in Hong Kong's Climate Action Plan. To that end, we have been progressively increasing the adoption of renewable energy and advanced technology solutions, including artificial intelligence ("AI") and Internet of Things ("IoT") to attain higher energy efficiency in our operations. We have also provided our customers with electric vehicle charging services and Integrated Smart Energy Solution to reduce their carbon footprint.

For community as a whole, besides mobilising our resources to help the city staying connected during the pandemic so that people can continue to work, live, learn and receive medical support, we have also been devoted to the promotion of 5G technology, digital payment and telemedicine services to accelerate Hong Kong's transformation into a smart city. More importantly, amidst the pandemic, our long-term efforts to bridge the digital divide by providing tailored services to the elderlies has become more meaningful, especially when various COVID-19 related digital applications, such as LeaveHomeSafe, are essential in everyday life.

Our people are our most important asset. We have dedicated ourselves to fostering an environment supporting diversity, equality and inclusion as well as continuous upskilling and learning, which are key to attracting and retaining talent in an increasingly competitive market.

Forging ahead with purpose and a clear vision in the long term, we will not only continue to enhance our ESG performance and disclosures, for example, by adopting international standards such as the Global Reporting Initiative's ("GRI") Universal Standards, but also strive to leverage our expertise to create more shared value for our stakeholders and community. I thank all our employees, management team and our Board for their full support as we pursue our ESG journey.

Susanna Hui

Acting Group Managing Director



ABOUT PCCW

PCCW Limited (“PCCW” or the “Company”) is a global company headquartered in Hong Kong which holds interests in telecommunications, media, IT solutions, property development and investment, and other businesses.

The Company holds a majority stake in the HKT Trust and HKT Limited (“HKT”), Hong Kong’s premier telecommunications service provider and leading operator of fixed-line, broadband, mobile communication, and media entertainment services. HKT delivers end-to-end integrated solutions employing emerging technologies to assist enterprises in transforming their businesses. HKT has also built a digital ecosystem integrating its loyalty programme, e-commerce, travel, insurance, big data analytics, fintech and healthtech services to deepen its relationship with customers.

PCCW owns a fully integrated multimedia and entertainment group in Hong Kong engaged in the provision of over-the-top (“OTT”) video service locally and in other regions, as well as content production, artiste management and the event business.

Through HK Television Entertainment Company Limited, PCCW also operates a domestic free TV service in Hong Kong.

In addition, PCCW holds a stake in Pacific Century Premium Developments Limited (“PCPD”) and other overseas investments.

ABOUT THIS REPORT

This is the ESG report for the Company and its subsidiaries (collectively the “Group”).

Reporting Period

This report covers the Group’s ESG accomplishments and challenges from 1 January to 31 December 2022, as well as our ongoing initiatives to enhance our ESG performance.

Reporting Scope

This report encompasses the Group’s core businesses based in Hong Kong, namely technology, media, and telecommunications, operated through our key subsidiaries HKT and PCCW Media, including the operations of our offices, retail shops, data centres, exchange sites, telecommunications sites, and transmissions, unless otherwise specified^{1,2}. Where relevant, it also references the activities of subsidiaries and outsourced operations.

The qualitative and quantitative information regarding the Group’s approach, initiatives, and priorities in managing material ESG aspects are disclosed in the report.

Reporting Standards

This report has been prepared in accordance with provisions of the Environmental, Social and Governance Reporting Guide (the “ESG Reporting Guide”) in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (“HKEX”). We have also prepared this report in accordance with GRI Universal Standards for the first year.

¹ In August 2022, Lenovo Group Limited and PCCW concluded the sale and purchase agreement by establishing a partnership, known as Lenovo PCCW Solutions Limited (“LPSL”), to create a technology solutions business in the Asia Pacific region. As a result of this strategic partnership, PCCW has maintained a minority stake in LPSL. Both the qualitative and quantitative information of LPSL are excluded in this report.

² For ESG-related information of PCPD, please refer to the Sustainability Report of PCPD.

Reporting Principles

The report has followed the Reporting Principles as recommended by GRI and as set out in the HKEX ESG Reporting Guide to define the report content and to ensure the quality of information presented, including:

Materiality	Quantitative
Materiality is assessed based on the results obtained from stakeholder engagement. The threshold for sustainability topics to become material has been reviewed and agreed by top management to ensure that they were comprehensive and important to our stakeholders.	<p>A cloud-based data management platform has been deployed to collect our ESG metrics, keeping track of our performance while assisting in target setting.</p> <p>Where applicable, we have compared year-to-year data and discussed their implications. Relevant standards, methodologies, assumptions, and conversion factors are disclosed when reporting the Group's emissions and energy consumption.</p>
Balance	Consistency
The content and data provided in the report are unbiased. We have discussed both our achievements and room for improvement in all ESG aspects.	This report adopts consistent methodologies to allow a fair comparison of our performance over time. Where applicable, we have disclosed the changes to the methods or key performance indicators ("KPIs") used.

Assurance

The board of directors (the "Board") of PCCW is accountable for our ESG strategies and reporting, as well as responsible for overseeing and managing our ESG-related risks. This report has been reviewed and approved by the Board of PCCW.

The environmental and social performance data in the report have been independently reviewed and verified by the Hong Kong Quality Assurance Agency ("HKQAA"). Please refer to the Verification Statement issued by HKQAA on page 58 for the verification scope and conclusion.

Contact Us

Available in both English and Chinese, this report can be accessed on both HKEX's website and PCCW's website.

We value stakeholders' views and suggestions. Please share your feedback on our sustainability management and reporting via the following channels:






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Phone: +852 2888 2888

Email: esg@pccw.com

HIGHLIGHTS AT A GLANCE

Sustainability Performance Highlights in 2022

Network Connectivity	Customer Services	Health and Well-being
<p>1st network provider that offers full 5G coverage along all MTR lines</p> <p>98% fibre-to-the-home ("FTTH") and 5G wireless-to-the-home ("WTTH") household coverage in HK</p> <p>Over 99% network reliability</p>	<p>54,829 customer compliments received</p> <p>Net Promoter Score of 97 in technical support³</p>	<div></div> <p>AR, drones, 5G and Edge Computing to assist site inspection or field services</p>
Diversity and Equality	Team Development	
<p>Over 60 different nationalities</p> <p>1:1.4 female to male staff</p> <p>Over 30% of senior management roles held by female staff</p>	<p>466,769 total training hours</p> <p>Skills Hub launched as a virtual learning platform to support continuous learning and development</p> <p>Piloted Collaborate & LEAD, a leadership learning programme</p>	<div></div>
Community Investment	Environmental Performance (compared to 2021)	
<p>Over HK\$115 million monetary and in-kind contributions on support programmes for the needy and event sponsorships to promote Hong Kong as an art and cultural hub</p> <p>COVID-19 relief measures including network services for over 3,000 community isolation facilities</p> <p>Over 2,600 volunteering hours and over 100 corporate volunteers signed up in the debut of the "Strive and Rise Programme" to support youth upward mobility</p>	<div></div> <p>↓ 33 GWh electricity consumption reduced</p> <p>↓ 5.6% energy consumption intensity reduced</p> <p>↓ 11.8% GHG emissions intensity reduced</p>	
Green Development		
<p>80% of office buildings covered by power metres to optimise energy consumption</p> <p>Approximately 10,000 electric vehicle charging facilities have been provided</p> <p>Integrated Smart Energy Solution has been utilised to regulate the load of our buildings by achieving close to 10% of energy savings</p> <p>The participation of Mastercard's Priceless Planet Coalition to help restoring 100 million trees globally by 2025</p>	<div></div>	
Supply Chain	Sustainable Finance	
<p>80% of our suppliers are Hong Kong-based</p> <p>76 supplier visits conducted</p> <p>Founding member of the Sustainable Procurement Charter established by the Green Council</p>	<p>Over US\$2 billion sustainability-linked loans issued</p> <div></div>	

³ Net Promoter Score in technical support is evaluated based on the survey sent to customers who received services delivered by our mobile consultants at designated cs/1010 shops such as handset data transfer and smartphone workshop.

MSCI ESG RATINGS



CCC B BB BBB **A** AA AAA

An overall rating of A in the MSCI ESG rating since 2019, ranking in the top 64% of global telecommunication services peers⁵



Council member of the Business Environmental Council since 2001



Hang Seng Corporate Sustainability Index Series Member 2022-2023

Constituent member of the Hang Seng Corporate Sustainability Index Series and the Hang Seng ESG 50 Index since 2020



20 Years Plus Caring Company



FTSE4Good

Constituent member of the FTSE4Good Index Series since 2017⁶



Friends of EcoPark 2022

⁴ For more awards and recognitions, please refer to PCCW's Annual Report 2022.

⁵ The use by PCCW of any MSCI ESG Research LLC or its affiliates ("MSCI") data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of PCCW by MSCI. MSCI services and data are the property of MSCI or its information providers and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks of MSCI.

⁶ FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that PCCW has been independently assessed according to the FTSE4Good criteria and has satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong ESG practices. Being one of the world's first global ESG index families, the FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.

MSCI
ESG RATINGS



CCC	B	BB	BBB	A	AA	AAA
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An overall rating of AA in the MSCI ESG rating since 2021, ranking in the top 35% of global telecommunication services peers⁸



Recognised as Hong Kong Green Organisation



Merit Award
(Large Organisation Category)
of the Hong Kong Sustainability Award 2022



5 Years Plus Caring Company



Gold Award (Media and Communication Category) of the 2021 Hong Kong Awards for Environmental Excellence



Friends of EcoPark 2022

⁷ For more awards and recognitions, please refer to HKT's Annual Report 2022.

⁸ The use by HKT of any MSCI data, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, recommendation, or promotion of HKT by MSCI. MSCI services and data are the property of MSCI or its information providers and are provided 'as-is' and without warranty. MSCI names and logos are trademarks or service marks of MSCI.

1. SUSTAINABILITY AT PCCW

Sustainability is at the core of PCCW's business approach. Our governance framework has established a solid foundation to ensure our corporate practices are undertaken in a responsible and sustainable manner for our business and the community at large.

Sustainability Governance and Communication

- Adopted robust governance structure and oversight responsibility
- Diversified communication channels with different stakeholders

Manage Sustainability-Related Risks

- Established Enterprise Risk Management ("ERM") framework to monitor and manage the risks
- Assessed the risk with "Three-Lines of Defence" models
- Provided a wide range of compliance training to employees

1.1 Sustainability Governance Structure and Oversight Responsibilities

At PCCW, we maintain a strong corporate governance framework which integrates the management of sustainability into our business operations and decision-making process for safeguarding the best interest of our stakeholder⁹. As the highest governance body of the Group, the Board is responsible for ensuring effective governance and oversight of sustainability strategy to drive the long-term value to our stakeholders. Responsibilities for managing, executing, and reviewing sustainability-related agenda are delegated to respective Board Committees, Sub-committees and respective sustainability drivers.

Highest Governance Body	The Board	
	<ul style="list-style-type: none"> Oversees sustainability strategy and acts as final decision-making body Keeps the Group's risk management and internal control systems sound and effective to ensure adherence to applicable laws and regulations Approves Corporate Social Responsibility ("CSR") Policy and Corporate Responsibility ("CR") Policy Reviews and approves the ESG Report 	
Board Committees	Executive Committee	Audit Committee
	<ul style="list-style-type: none"> Operates as a general management committee under the overall delegation of authority from the Board 	<ul style="list-style-type: none"> Assists the Board in assuring the objectivity and integrity of financial reporting, and those directors have presented results to shareholders with care, diligence, and competence required by law Assists the Board in ensuring that effective risk management and internal control systems are in place and good corporate governance standards and practices are maintained Reviews and recommends the ESG report for the Board's approval

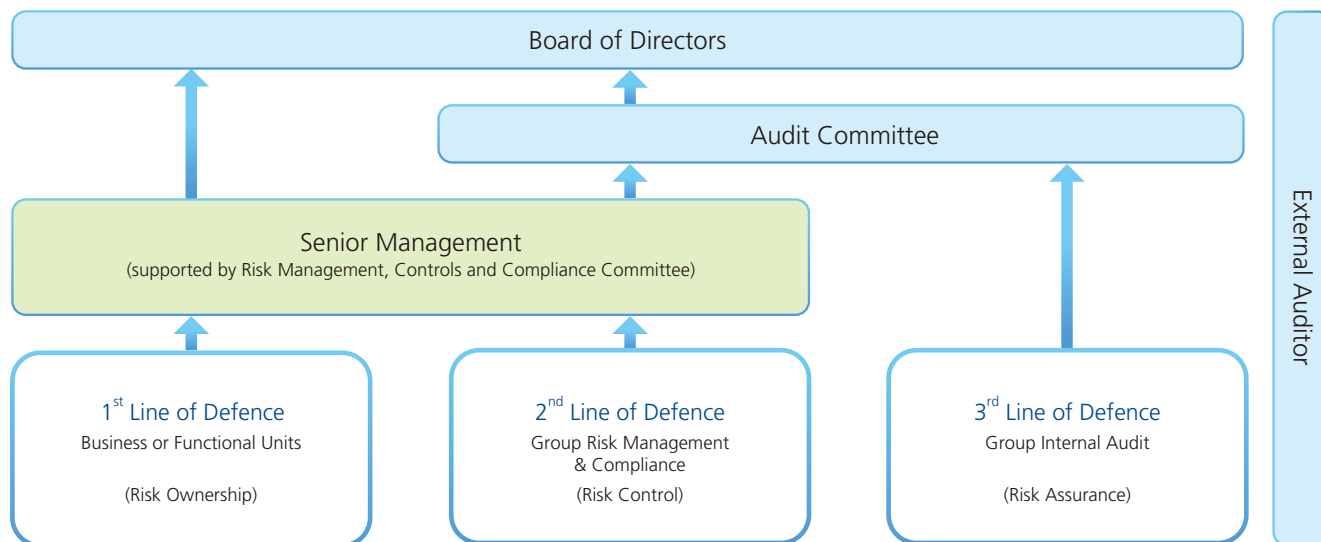
⁹ For more information on the Group's corporate governance practices, please refer to the Corporate Governance Report of PCCW's Annual Report 2022.

Sub-committees	Risk Management, Controls and Compliance Committee ("RMCCC") <ul style="list-style-type: none"> Reviews procedures for preparation of the Group's annual and interim reports, from time to time Reviews Group policies to ensure compliance with the various rules and obligations of a Hong Kong-listed company Assists the Board and/or the Audit Committee in the review of the effectiveness of the Group's risk management and internal control systems on an ongoing basis Reviews and recommends the ESG report for the Board's approval 		Sustainability Committee <ul style="list-style-type: none"> Reviews the Group's sustainability strategy, principles, and policies to ensure that the Group operates in a manner that enhances its positive contribution to the society and the environment Oversees and provides guidance and direction for sustainability practices and procedures Monitors the progress on sustainability-related initiatives and its relevant goals and targets Reviews the ESG Report
	CSR Team <ul style="list-style-type: none"> Engages with the stakeholders to promote sustainability internally and externally Organises and implements sustainability initiatives Prepares the ESG Report 	Departmental CSR Representatives <ul style="list-style-type: none"> Establish collaboration with the CSR Team and the Functional units ("FUs")/Business units ("BUs") Facilitate implementation of sustainability initiatives Raise sustainability awareness amongst colleagues Assist in ESG reporting and ESG-related surveys 	Environmental Advisory Group <ul style="list-style-type: none"> Advises on environmental policies and targets and provides suggestions to the Sustainability Committee Assists in the coordination of BUs and cross-BUs environmental initiatives
Implementation/ Execution of Sustainability Strategies and Actions	FUs and BUs <ul style="list-style-type: none"> Implement sustainability initiatives and ensure their compliance in daily operations 		

The "CSR Committee" was renamed to the "Sustainability Committee" on 24 February 2023.

1.2 Enterprise Risk Management

The Group adopts an Enterprise Risk Management (“ERM”) framework with reference to ISO 31000:2018 Risk Management – Guidelines. Our ERM framework is guided by the “Three-Lines of Defence” model that integrates both top-down and bottom-up risk management process.








Group Risk Management & Compliance (“GRM&C”) as the second line of defence, performs a supervision role in ERM to provide advisory support to enable risk and compliance oversight of the first line of defence, while ascertaining the relevant embedded controls are effective. Being the risk owners, FUs and BUs identify, evaluate, mitigate and monitor their own risks, and report such risk assessment process to GRM&C on a regular basis. Through supervising the ERM activities, GRM&C assesses and reviews significant aspects of the Group’s risk exposures. The identified material risks and corresponding mitigation measures will be reported to the Audit Committee regularly to ensure proper management of all significant risks (including sustainability risks) of the Group.¹⁰

Sustainability Risks and Climate Change

In recent decades, climate change has posed physical climate risks to the global community through more frequent extreme weather events. Consequently, more stringent policy requirements towards decarbonisation are expected to drive the adoption of low-carbon technology, exposing our business operations to transition climate risks. The Group has been enhancing its climate resilience through technological innovations and implementing control measures to mitigate these climate risks to enable the continuity of Group’s business operations.

¹⁰ For further information on the ERM framework and methodology, please refer to the Corporate Governance Report of PCCW’s Annual Report 2022.

Listed below are our responses on various sustainability initiatives we have implemented to raise awareness and combat climate change:

Responding to Climate Change		
Nature of Risk	Impact	Our Response
 <p>Acute Physical Risk</p> <p>Risks that are driven by extreme weather events, such as typhoons, heavy rainfall, and floods.</p>	Increased frequency and severity of extreme weather events may lead to disruption of network operations and telecommunication service.	We have installed IoT sensors in flooding alarm system which help us to monitor the water level in various locations and allow timely response for remedial actions. Besides, emergency plan or contingency plans are in place to provide guidance on severe weather conditions.
 <p>Chronic Physical Risk</p> <p>Risks associated with longer-term shifts in climate patterns, such as sustained high temperature, change in precipitation patterns.</p>	Long-term shifts in climate patterns have potential impact on our infrastructure and facilities, which may lead to disruption of our services provision and business continuity.	Our technical team will closely monitor the network equipment functionality and ensure that the cooling equipment is in good condition especially when temperature increases.
 <p>Policy and Legal Risk</p> <p>Policy actions that attempt to constrain actions that contribute to the adverse effects of climate change.</p>	More stringent policy requirements towards decarbonisation and other environmental-related targets, which require to put in additional transition efforts for compliance.	The Group supports Hong Kong's Climate Action Plan 2050 with various climate initiatives and measures implemented. We will keep abreast of the latest regulatory development to ensure compliance with the applicable laws and regulations in the jurisdictions in which we operate.
 <p>Technology Risk</p> <p>Risk associated with technologies used in the transition to a lower-carbon economy.</p>	The use of low-carbon technologies may increase the Group's operating cost.	We have adopted digital solutions and smart technologies to enhance the energy efficiency and resources conservation in our building and facility management. The Group has taken proactive steps to adopt renewable energy and promote the use of electric vehicles ("EVs").
 <p>Reputation Risk</p> <p>Risk of changing customer and/or public perceptions of our contributions to a lower-carbon economy.</p>	The Group's reputation may be adversely affected if it cannot meet customers and/or public expectations.	As a conglomerate with global footprint, our success depends on the trust of our customers, stakeholders, and the public at large. The Group has been actively engaging with our stakeholders to understand their expectations and strive to enhance our ESG performance and disclosures.

1.3 Sustainability Policies

The Group is committed to observing high standard of governance and integrity in all aspects of our business. We review the Group policies regularly to ensure that we adhere to the latest applicable laws and regulations. All employees are expected to strictly comply with Group's policies and procedures when acting on behalf of the Group, whether dealings with customers, third parties, regulators, authorities, or the general public.

The Board via RMCCC has endorsed a number of policies to ensure full awareness of proper governance and compliance responsibilities across different FUs and BUs.

Aspects	Policies
 <p>CSR Management approach</p>	<ul style="list-style-type: none"> • CR Policy • CSR Policy
 <p>Governance</p>	<ul style="list-style-type: none"> • Anti-Bribery and Corruption Policy • Anti-Money Laundering and Counter-Terrorist Financing Policy • Corporate Incident Response Plan • Information Technology Security Policy
 <p>Customer and Marketplace</p>	<ul style="list-style-type: none"> • Fraud and Security Incident Management Policy • Intellectual Property Rights Policy • Personal Data Privacy Policy • Privacy Statement • Sensitive Information Monitoring Policy
 <p>Employment</p>	<ul style="list-style-type: none"> • Employee Handbook • Human Resources Policy Manual • Occupational Safety and Health Policy
 <p>Environment</p>	<ul style="list-style-type: none"> • Energy and Water Management Policy and Guidelines • Gas Emission Reduction Policy • Waste Treatment Policy
 <p>Supply Chain Management</p>	<ul style="list-style-type: none"> • Group Purchasing Policy and Principles • Supplier Code of Conduct

1.4 Business Ethics

We recognise the value in building trust with our global business partners and stakeholders through transparency. The Group places great importance on conducting business ethically with an effective framework of corporate governance in place. As a responsible business operator, we strictly adhere to the Group's ethical standards and comply with all applicable laws and regulations in different jurisdictions in which we operate. Guided by the comprehensive scope of the Group policies and procedures, all Group members, including directors, officers, and employees, must adhere to a set of behaviour standards that goes beyond the local statutory requirements.

Anti-bribery and Corruption

The Board has zero tolerance towards any form of bribery and corruption at any level in association with any aspect of the Group's activities. Our Anti-Bribery and Corruption ("ABC") Policy provides principles for all directors, officers, employees, and external parties acting in any capacity on behalf of the Group to conduct business with integrity and honesty and to reduce the risk of corruption. Furthermore, an ABC Procedure Manual ("Procedure Manual") has been developed to provide detailed guidance on mitigating potential bribery and corruption risks in conjunction with the ABC Policy while maintaining the highest possible ethical standards and vigorously enforcing its business practices, whenever it operates throughout the world. In case of any doubt as to whether any misbehaviour or unusual business transaction could lead to bribery and corrupt practices, employees are urged to refer to the Procedure Manual. The Procedure Manual is proportionate to and focused on the risks that we face, including those arising from its associated parties. In addition, offering or promising to give or accept any gift or hospitality to reward or retain a business, or recognise any bribery or corruption in any business dealings that involve the Group, government officials, our customers, suppliers, or employees are strictly prohibited. As a technology conglomerate with a footprint worldwide, we strictly adhere to global anti-corruption laws such as the United Kingdom Bribery Act 2010, which is internationally recognised as one of the highest ABC standards and forms the basis of our Policy and Procedure Manual.

Anti-money Laundering and Counter-terrorist Financing

Anti-Money Laundering ("AML") and Counter-Terrorist Financing ("CTF") Policy have been established by the Group. All subsidiaries, employees and associated parties of the Group are required to follow an effective and systematic AML and CTF framework in their business dealings and daily operations. To ensure strict compliance with all applicable laws and regulations, risk assessments and monitoring activities are undertaken regularly at the BU level. In the event of conflict of interest, employees are required to seek clarification from their line managers. Application and declaration forms are available on our intranet.

Whistleblowing

A high standard of corporate governance is maintained by the Group, in accordance with which ethics, transparency, accountability, and integrity are upheld in all areas of its operations without compromising the interests of its shareholders. All internal and external stakeholders are encouraged to report actual or suspected improper conduct in confidence to the Audit Committee via Group Internal Audit.

All whistleblowing cases are treated in strict confidence accordance with the procedures set out in the Group's Whistleblower Policy and Procedures Manual, which are periodically reviewed and updated. Senior employees are designated to act as the case manager on behalf of the Chairman of the Audit Committee, such as the Head of Group Internal Audit. The case manager is responsible for the case's conduct, management, and reporting. Once the investigation is complete, a report is submitted to the RMCCC for consideration and further reporting, as appropriate, to the Audit Committee. The report context includes its final disposition, impact, implications, and recommendations for improvement, if applicable.

Data Privacy

We have strict internal policies, procedures, and compliance guidelines in governing how we collect, use and manage customer information. These policies and guidelines have clearly defined roles and responsibilities of handling personal data, and stipulate appropriate security measures to achieve confidentiality, integrity, and accountability.

The Group Privacy Compliance Officer is responsible for monitoring regulatory compliance with all matters relating to personal data, and further enhancing our security policies and standards if needed. A Data Protection Impact Assessment ("DPIA") is conducted before we enter into business in a new country or introduce any new product or service. The DPIA identifies any data privacy risks in the business process, provides a basis on which to assess and implement the corresponding risk-mitigating controls, and ensures our compliance with all data protection obligations.

Information Security

We adhere to the highest standards of cybersecurity practices in efforts to protect our customer privacy and our business data. Our information security policies and guidelines are referenced to industrial best practice including ISO 27001. The Group periodically reviews such guidelines to ensure its effectiveness.

At the Group level, the Group Information and Cybersecurity Council ("GICSC") oversees all cybersecurity-related initiatives, investments and ongoing maintenance pertaining to the protection of the Group's core infrastructure including networks, servers and endpoints. The GICSC reports directly to top management on any cybersecurity matters requiring escalation. Moreover, there are dedicated teams under the Group, known as the Group Information and Cybersecurity Office, responsible for reviewing the overall cybersecurity risk profile and monitoring suspicious traffic and activity to combat cyberattacks. The team constantly reviews the latest development in cybersecurity to enhance our policies and investment in capabilities and technologies to be well-equipped for timely response in the case of any newly identified risk.

At the department level, some of our FUs and BUs have attained ISO 27001 certification, demonstrating our efforts in security management and our full commitment to data and information security. In order to ensure that we adhere to the latest legal and regulatory requirements, we have established stringent internal policies that formalise and align these requirements into our day-to-day operations.

Fostering Compliance Culture at All Levels

The Board has adopted the CR policy which serves as the overarching principles to be applied throughout the Group with clear and concise guidelines to behaviours and corporate responsibilities of directors, officers and employees so as to uphold a high level of standards of behaviour that go beyond minimum legal standards. All employees are required to sign a declaration of acknowledgement in accordance with the CR policy. Violation of the Group's policies, procedures and guidelines may result in verbal or written warning or even lead to summary dismissal depending on the severity of the infraction.

To reinforce our guiding principles and foster a culture of compliance across the Group, we provide ongoing compliance-related training to all FUs and BUs, while keeping abreast of the development of relevant laws and regulations. A series of risk management training workshops have been conducted for first-line risk owners in FUs and BUs to raise their overall awareness and ascertain the integration of sustainability-related risks and opportunities into the ERM system. It is mandatory for all new employees to undergo induction training on risk and compliance, which covers ERM and Compliance, ABC, AML & CTF, Whistleblower, Data Privacy, Technology Risk & Cybersecurity, and International Trade Compliance. In addition, the Group has reiterated its zero-tolerance attitude towards bribery and corruption by introducing Group ABC Policy and Procedure Manual, as well as sharing knowledge on relevant global laws and regulations to our employees through online training courses on a regular basis. Apart from the aforementioned topics, the ABC training also covers items around third-party due diligence and management, warning signs and red flags, along with other case studies with the objective to further raise our employees' awareness of ABC in carrying out their daily duties.

In 2022, we have neither concluded legal cases concerning non-compliance with the Prevention of Bribery Ordinance (Cap. 201) and other applicable laws and regulations related to corruption, nor any legal cases concerned with corrupt practices brought against the Group or its employees.

1.5 Stakeholder Engagement

Through regular stakeholder engagement, the Group has identified the material ESG topics and prioritised our ESG initiatives in response to stakeholders' needs and expectations.

Stakeholder Engagement Processes



Communication Channels



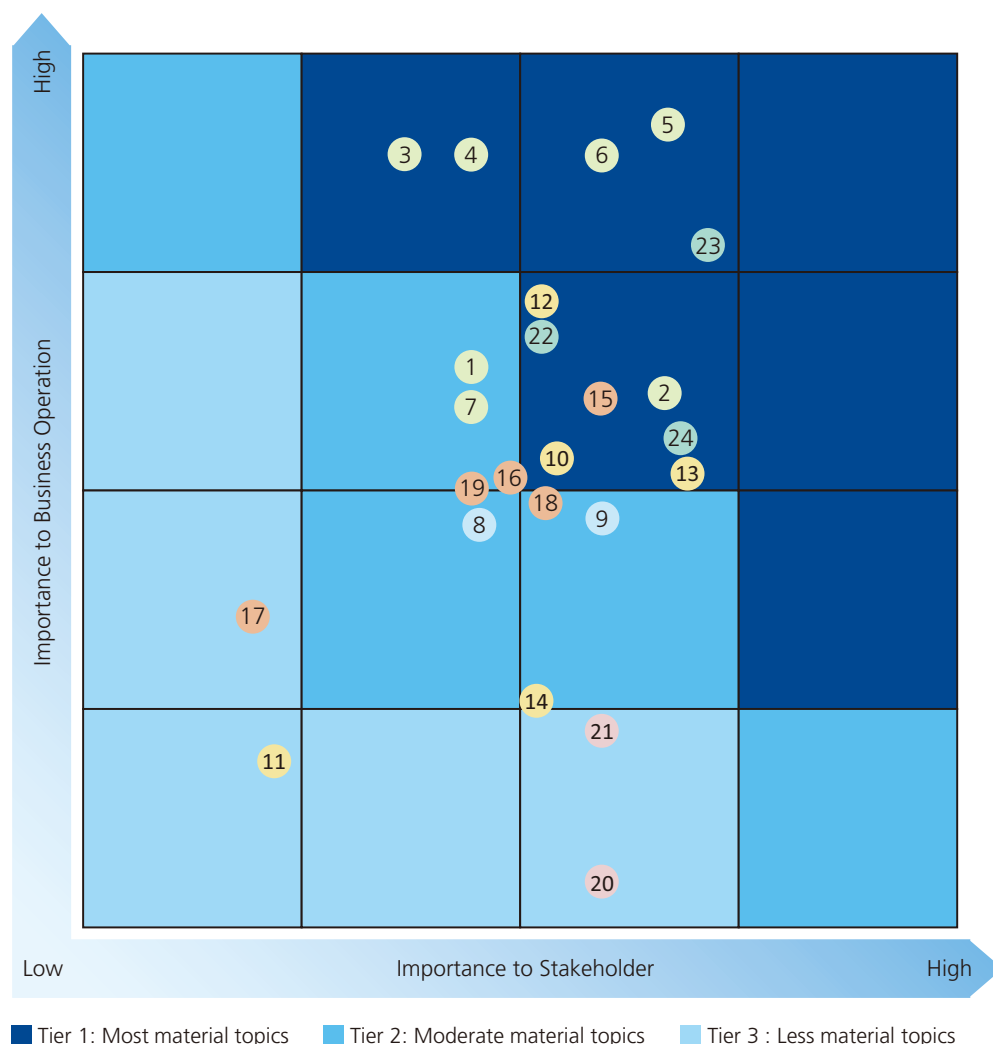
Materiality Matrix and Result

With the consideration of the above communication channels, the Group has also taken megatrend and peer analysis into account when we review the material topics. In order to ensure the materiality matrix is aligned with our stakeholders' expectations, we have invited both our internal and external stakeholders to share their opinions. Internally, we have solicited feedback from the respective FU and BU heads, as well as selected members of their staff. Externally, we have engaged investors, suppliers, contractors, corporate clients, business partners, academia, and community partners in this exercise.

We have identified the key material topics shown on the list on page 22. The top three key material topics this year are "Customer data privacy and protection", "Information security and management" and "Anti-corruption" respectively while other material topics remain relevant and significant to our stakeholders and businesses in 2022.

In addition, "Energy efficiency", "GHG emissions", and "Climate change" have been ranked higher by stakeholders in 2022 compared to 2021 as aligned with Hong Kong's Climate Action Plan 2050:

PCCW's Materiality Matrix 2022



	Material Topics	Boundaries and Impacts*						
		Employees	Business Partners	Community Partners	Corporate Clients	Retail Customers	Shareholders and investors	Supplier and Contractors
1	Responsible advertising and communication		•			•		
2	Customer health and safety	•			•	•		•
3	Reliable services and products	•	•		•	•	•	•
4	Customer service and satisfaction	•	•		•	•	•	•
5	Customer data privacy and protection	•	•		•	•	•	•
6	Information security and management	•	•		•	•	•	•
7	Innovation	•	•	•	•	•	•	•
8	Community investment	•		•			•	
9	Promote innovative culture/incubate talents	•	•	•			•	
10	Employee well-being	•					•	
11	Diversity and inclusion	•			•		•	
12	Employee retention and talent development	•					•	
13	Occupational safety and health	•		•	•	•	•	•
14	Human rights	•					•	•
15	Energy efficiency	•	•	•	•	•	•	•
16	GHG emissions	•	•	•	•	•	•	•
17	Waste management	•	•	•	•	•	•	•
18	Climate change	•	•	•	•	•	•	•
19	Green information and communications technology solutions	•	•		•	•	•	
20	Supply chain management	•			•	•		•
21	Sustainable procurement	•			•	•		•
22	Corporate governance and risk management	•	•		•	•	•	•
23	Anti-corruption	•	•	•	•	•	•	•
24	Competitive behaviour	•	•		•	•	•	•

* Boundaries and impacts of each material topic that are relevant to the corresponding stakeholders are indicated with "•" in the table above

To reflect on the international best practice in sustainability reporting, the Group has applied the concept of double materiality¹¹ in its materiality assessment process. The financially material topics that management considered most likely to create or diminish the Group's enterprise value are as follows:

Financially Material Topics and their Impacts



Customer Data Privacy and Protection

Safeguards sensitive personal data and business information provided by customers in the day-to-day operations

Financial Impact

Loss in revenue and/or market share, legal costs, etc



Information Security and Management

Establishes information security management system for FUs and BUs to identify, evaluate, mitigate, and monitor their risks exposures in minimising cybersecurity threat

Financial Impact

Loss in revenue lost and/or market share, costs arising from service blackout/disruption



Energy Efficiency

Reviews management system, energy consumption targets and upgrade equipment/facilities to improve energy efficiency and reduce energy consumption

Financial Impact

Energy costs, investments in energy efficient technologies/upgrades (e.g. power metres with IoT solutions)

Responses to the Stakeholders

During our materiality assessment exercise, we have received many valuable comments from our stakeholders on major ESG issues. Below are our responses to some of key comments from stakeholders this year:



Environment

Electricity and Power Consumption

Q1:

An increase in demand for communications and services may drive electricity and power consumption to a higher level. How does the Group commit to such conservation?

Our response:

The Group has set several environmental targets for 2025 and conducts series of annual review to evaluate our performance against those targets. To reduce our electricity and power consumption, we have been exploring different energy saving options internally and externally. In 2022, we have reduced the air conditioner usage at our data centres while switching off our 2G wireless network. While within our office premises, we have installed automatic sensors for lighting and dismantled additional fluorescent tubes in buildings to reduce power and electricity consumption.

For more details, please refer to the "Enhancing the Group's Environmental Resilience and Agility" chapter of this report.

¹¹ The concept of double materiality encourages a company to judge materiality from two perspectives 1) "the extent necessary for an understanding of the company's development, performance and position" and "in the broad sense of affecting the value of the company"; 2) environmental and social impact of the company's activities on a broad range of stakeholders. The concept also implies the need to assess the interconnectivity of the two.



Social

Talent Retention & Development

Q2:

Due to the competitive labour market, there is inherent difficulty to attract the right talent. How does the Group respond to this issue with the current talent acquisition, training, and development programmes?

Our response:

We have recognised that talent shortage may hinder our business development. Therefore, we utilise ample of resources to strengthen our talent pool, in particular to the technology industry and foster our talent development across the Group. Since 2022, we have launched Skills Hub, a virtual learning platform to facilitate employees continuous learning at anywhere and anytime. In addition, we have piloted the “Collaborate & LEAD programme” to enhance our colleagues’ leadership skills.

For more details, please refer to the “Becoming an Employer of Choice” chapter of this report.



Governance

Communications on Sustainability Strategy

Q3:

PCCW is a technology conglomerate with diverse businesses and a large group of stakeholders. How does the Group foster effective communication and alignment on sustainability strategy across the Group and its stakeholders?

Our response:

The Board, our highest governing body, is responsible for the supervision of the Group’s sustainability strategy. The Sustainability Committee takes on the responsibility to monitor and report the implementation of sustainability-related policies and procedures across the Group, while assisting top management’s decision-making and providing guidance to the working groups/teams to implement best sustainability practices and initiatives in our day-to-day operations. Our respective board level committees meet regularly to review the Group’s performance, which accurately reflect the needs and concerns of our stakeholders. We also communicate our sustainability strategy with external stakeholders through ongoing stakeholder engagement.

For more details, please refer to the “Sustainability at PCCW” chapter of this report.

2. CREATING SHARED VALUE

Creating shared value is at the core of the Group's purpose and sustainability strategy. Leveraging our expertise and strengths to address the societal needs, we have created long-term value for both our businesses and supported the sustainable development of the communities we serve.

Transform More Businesses to Sustainability

- Accelerated digital transformation in the new 5G era
- Supported smart city transformation on digital payment and medical services
- Provided green solution offerings to enterprises

UNSDGs¹²:



Elevate Quality of Life

- Created sustainable low-carbon lifestyle accessible and enjoyable
- Bridged the digital divide by providing tailored services to the elderlies
- Broadcasted sustainability context to audiences

¹² The 17 United Nations Sustainable Development Goals ("UNSDGs") form a comprehensive set of objectives and targets for everyone to identify their part in sustainability. We have identified our contributions and relevance to the specific UNSDGs and feature them on the first page of this and the upcoming chapters.

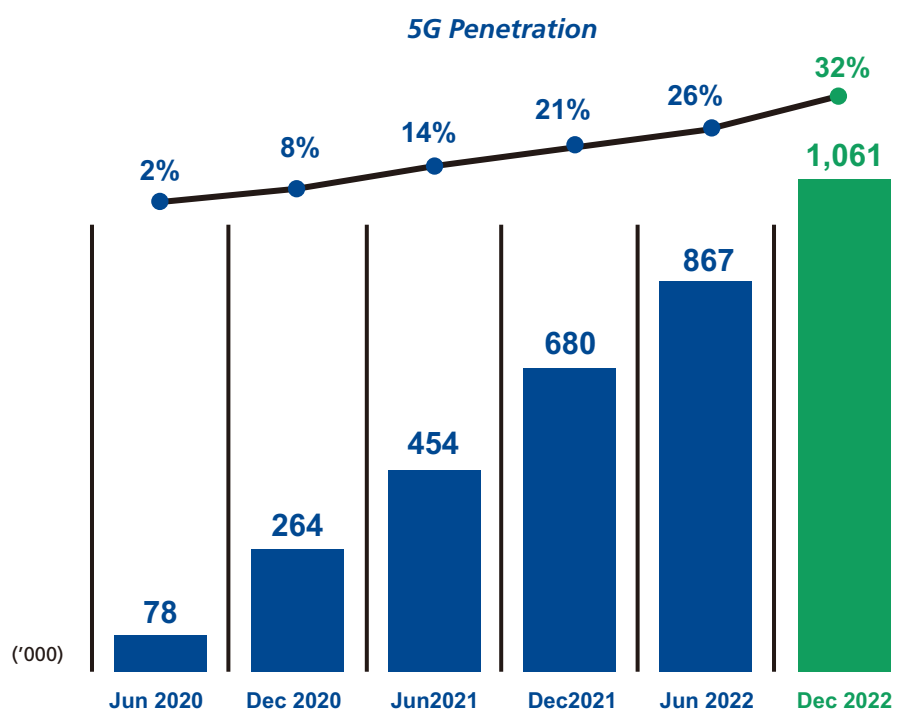
2.1 Accelerating Digital Transformation in the New 5G Era

Connect the City with 5G

5G, with its ultra-high speed, low latency and ability to conduct massive scale of machine type communications, can empower a wide range of applications and innovations and benefit people and businesses such as start-ups, small and medium-sized enterprises (“SMEs”) in innovative ways unprecedentedly. It also contributes to the enhancement of cross-border communications, while attracting overseas businesses and investments making use of such seamless network. 5G has become crucial for the sustainable development of our community.

The Group continues to support our city in embracing the new 5G era by deploying a territory-wide 5G service covering 99% of Hong Kong. Our service is now publicly available in more than 3,000 mobile sites including all MTR lines¹³, country parks, remote camping sites, hiking trails, and cycle tracks.

Our non-Dynamic Spectrum Sharing technology helps enriching our customer experience by providing optimal 5G and 4G solutions. Since 2022, our 5G customer base has almost doubled and surpassed 1,061,000, reaching a penetration rate of 32% of our post-paid customer base. We will continue to promote the adoption of 5G to ensure Hong Kong can fully enjoy the benefits of the latest technology and maintain its competitiveness on the global stage.



Since 2022, we have initiated network rollout to 24 remote villages listed under the Office of the Communications Authority (“OFCA”)’s Subsidy Scheme, supporting both fibre broadband and 5G mobile backhaul. Our FTTH network and 5G WTTN technology have reached 98% of households in Hong Kong, enabling our customers to access high-speed broadband with 10G fibre capacity. We have also established over 28,800 Wi-Fi hotspots in Hong Kong as of December 2022 that allows customers connecting to the network seamlessly while traveling.

¹³ The Group is the first network provider that offers 5G coverage along all MTR lines in Hong Kong.

5G Enterprise Solutions Enhancing Productivity and Business Expansion

First 5G Business Hub in Hong Kong – Taikoo Place and Pacific Place

Partnered with Swire Properties, HKT has empowered Taikoo Place and Pacific Place as the first business hubs in Hong Kong with 5G connectivity. By offering reliable, seamless and ultra-fast 5G connectivity indoors and outdoors, we have facilitated tenants and visitors to collaborate and fully leverage the virtual platforms, increasing their efficiency and productivity both in and out of their offices.



Developing Hong Kong's first 5G business hub with Swire Properties

Cloud-based “Workplace for Tomorrow”

The cloud-based technology “Workplace for Tomorrow”, collaboratively launched by HKT and New World Development (“NWD”), is contributed to staff mobility, facilitated team collaboration and boosted productivity. The cloud-based technology combined with 5G connectivity has enabled users to perform tasks remotely and automated business operations. This creates a seamless cross-border collaboration across Hong Kong and mainland China and helps accelerating the expansion of NWD’s business in the Greater Bay Area.

We have placed great importance on empowering our partners to make ESG commitments through our technology services. Our 5G cloud computing service supported by the Software-defined WAN (“SD-WAN”) technology assists NWD in strengthening their ESG practices such as cybersecurity while achieving low-carbon footprint objectives by reducing paper consumption in offices.

2.2 Supporting Smart City Transformation

Accelerate Digital Economy Development

Digital economy is a crucial element in Smart City Development. Not only does it provide a speedy and convenient experience for consumers, it also supports business growth and maintains Hong Kong's position as one of the leading international financial centres. The Group strives to support digital economy development via HKT Digital Ventures businesses which include e-payment, digital commerce as well as our virtual bank joint venture.

Tap & Go for Enhancing Digital Payments

Our Tap & Go as one of the stored value facilities has participated in the Government's Consumption Voucher Scheme ("CVS"), to facilitate the economy recovery which has been impacted by COVID-19. The simple account application, payment and top-up functions allow customers to make their purchases easier, which has helped promoting economic prosperity in the local community. Meanwhile we have acquired new merchants for CVS, facilitating them to seize new business opportunities by the adoption of new payment methods.

With its participation in CVS, Tap & Go has successfully captured a loyal customer base, especially amongst Generation Z and the millennials, and created a great opportunity to accelerate Hong Kong's transformation into a digital economy and expand the Group's customer reach. Tap & Go has also promoted contactless e-payment that eases the concern on the wide spread of the pandemic, as well as enhancing customer experience, and by reducing our operating cost through consuming less plastic and paper.

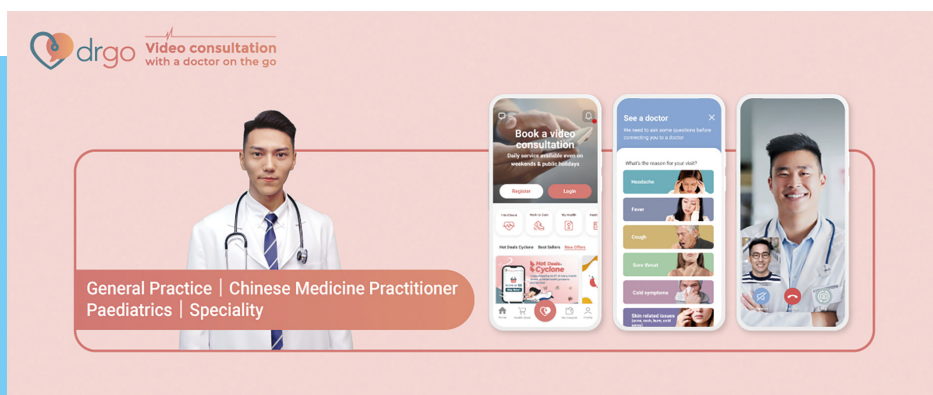
In addition, our integrated loyalty and digital stored value facilities cover a comprehensive merchant network encompassing online shopping, travel, gaming and groceries, allowing consumers to get used to a digital lifestyle.

Make Medical Service Easily Accessible

Amid the pandemic, the fast track to medical consultation has become crucial. In meeting such demand, DrGo, as a one-stop telemedicine platform, is aspired to provide cutting-edge technology in facilitating medical consultation virtually to allow the citizens living better. DrGo leveraged its innovation edge as a health-tech solution provider, offers online consultations in need, with the objective to help alleviating the burden on the public medical system under the influence of the pandemic, benefiting patients and their families, as well as the health care sector.

DrGo Telemedical Service: Supporting the Community Needs

We have leveraged the DrGo platform to provide free doctor consultations to the underprivileged by sponsoring 100 free Traditional Chinese Medicine video consultation service sessions while subsidising another 100 underprivileged families for free general practitioner's video consultation. In addition, we have also offered 100 high-risk individuals to undergo bone-density tests in Quality HealthCare Medical Services and heighten local awareness on the risks of osteoporosis.



One-stop telemedicine platform – DrGo

2.3 Green Solution Offerings

To combat climate change and support Hong Kong to achieve carbon neutrality, we have developed a series of green solutions targeting the specific initiatives outlined in the Government's Climate Action Plan 2050, namely, energy saving, green buildings and green transport.

Integrated Smart Energy Solution Enhances Energy Efficiency and Creates a More Sustainable Future for Enterprises

The Integrated Smart Energy Solution offered by HKT helps enterprises achieving energy saving in multiple ways with 5G connectivity, including deployment of renewable energy through Solar Photovoltaic, optimising energy distribution by adding patented Quantum Optimiser to existing power system lowering energy consumption, utilising AI powered management system to control energy consumption with real-time data collected, and using IoT sensors to detect occupancy and adjust power usage for higher energy efficiency. Based on our use cases, the solution has effectively reduced energy consumption by close to 10%, making a positive difference to the environment and reducing operating costs amid the soaring electricity fees.



Smart Living Solutions Help Realising Low-Carbon Lifestyle

Electricity consumption per household in Hong Kong has gradually increased at an average annual rate of 1.1% in the last decade. Meanwhile, the electricity tariff in Hong Kong has increased by over 5% per kilowatt-hour since 2022. Our Smart Living Solutions service allows customers to regulate the room temperature and humidity, while monitoring the usage of other electronic appliances. This service serves as a sustainable lifestyle tool, resulting in positive outcomes for both customers and the natural environment at large.

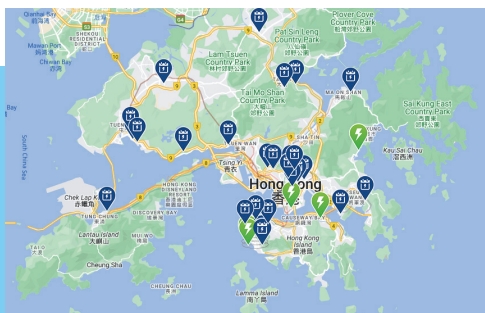


Key features of the Mixpad Mini All-in-one Panel

Smart Charge Promotes the Adoption of EVs and Reduces the Environmental Impacts Caused by Transportation

Electrification of transportation system has become a global trend given the imminent needs to protect the environment by reducing GHG emissions and air pollution. The goal of transforming Hong Kong into a greener smarter city has been announced by the Government on the ceasing of new registration of fuel-propelled private cars, in 2035 or earlier.

With the increasing demand for EV charging facilities, HKT has joined hands with CLP to form Smart Charge (HK) Limited to provide one-stop EV charging service which covers the end-to-end process from site layout, equipment installation, liaison with building management office, to after-sales service. Our EV charging infrastructure has been installed at over 36 locations around Hong Kong, including residential car parks, hotels, and commercial buildings covering approximately 10,000 car spaces as of 2022. We will continue to expand the Smart Charge infrastructure across different regions including office buildings.



Charger locations in Hong Kong



Smart Charge services provide after-sales support to customers

2.4 Bridging the Digital Divide

With digital services becoming a daily necessity for the general public, HKT is committed to equip senior citizens with necessary knowledge and skills to live a modern digital lifestyle. Thus, we have launched a range of mobile service plans such as the “Smart Pama Service Plan” and “Elderly Smart Watch Service Plan” to combat the challenges that the elderlies may face with modern technology.

Smart Pama Service Plan – Supporting the Elderlies’ Digital Needs Caused by COVID-19

In Hong Kong, the proportion of citizens aged 65 and over in the total population rose from 13% in 2011 to 20% in 2021, which means 1 in 5 persons in the city is an elderly. Smart Pama Service Plan is a commercial service that provides holistic technical support and discounts to the elderlies through a Smart Pama 24-hour service hotline, ambassador programmes in retail stores, free call filtering, and workshops to help them fully enjoy their digital devices including smartphones and tablets as well as learning the useful functions such as photography and social media.

Under the influence of COVID-19, there have been many special digital measures which the elderlies have to learn and adapt to maintain their daily life, such as using the LeaveHomeSafe app before entering restaurants, clinics, wet markets and even shopping malls. The Smart Pama Service Plan has promptly added to these range of offerings and helped our senior members adjusting to this unexpected “digital transformation”. The programme has served over 100,000 elderlies as of 2022.



Smart Pama 24-hour service hotline

Provide timely technical support to the elderlies when they encounter difficulties on using mobile phones



Free smartphone workshops and ambassador support

Teach the elderlies how to use smartphones, for example, setting up personalised interfaces, and installing new apps, and scanning the LeaveHomeSafe QR codes



Free call filtering and suspension of roaming services

Provide free call filtering and suspend roaming services to help the elderlies avoid bill shock and frequent promotion calls

2.5 Broadcasting Sustainability Mentality

TV programmes could make learning sustainability concepts fun and enjoyable. We have leveraged our domestic free broadcasting channels to disseminate knowledge regarding Science, Technology, Engineering, Art and Mathematics (“STEAM”), health and environmental protection. Our diverse contents are tailored for all age groups, ranging from pre-schoolers to adults. For example, “Stories in the Fifth Wave of Pandemic” and “Say ‘Low’ To Carbon” facilitate the understanding of the importance of environmental conservation and how to mitigate health and climate risks and their impacts, alongside with “Now Learn” inciting children’s creativity and interests in learning STEAM subjects.



Variety of TV programmes covering environmental, social, and STEAM topics

ViuTV Eco-friendly TV Series

In recent years, we scaled up our efforts in engaging a broader audience with sustainability related concepts across TV programmes and series. Some signature programmes from ViuTV that promote low-carbon diet, eco-tourism, and other eco-friendly initiatives include the following:



Say “Low” to Carbon



Eco friendly eats



Happy family day

3. ENHANCING CUSTOMER EXPERIENCE, PRODUCTS AND SERVICES

We place high importance on delivering services and products to meet our customer expectations and enhancing customer experience. In order to achieve the objectives, we value each customer feedback, protect the best interests of our customers through our innovative offerings.

Enhance Customer Experience and Satisfaction

- Collected customer feedback through multiple channels
- Established AI-enabled Voicebot in responding customer enquiries

Ensure Reliable and High-quality Products and Services Offerings

- Ensured high network reliability
- Established quality management protocol to manage product and service quality in a systemic way

Enable Customers to Enjoy Services in a Safe Environment

- Established stringent data privacy and information security controls to protect customer data
- Provided Secure Access Service Edge ("SASE") Service to prevent cyberattacks

UNSDGs:



3.1 We Care for our Customers

Being a customer-centric service provider, our services and products are closely related to the livelihood of our customers and we are committed to serving them to the fullest extent of our abilities by continuously raising our level of service excellence and safety to meet their current and future needs.

Service Quality and Reliability

The Group has implemented a set of stringent quality management protocols ensuring our services are stable and reliable. We have a dedicated team responsible for the development and management of customer services and strictly comply with OFCA's requirements.

We have acquired various international quality and management system certifications, including ISO 9001:2015 (Quality Management System) and ISO 20000-1:2018 (IT Service Management System). These certifications recognise our quality and management systems that are aligned with international best practices.

We also monitor our service reliability through the performance indicators below:

		Performance Target	Actual Performance in 2022
csl	Network reliability ¹⁴	100%	100%
	Service restoration ¹⁵	< 60 minutes	< 60 minutes
1010	Network reliability ¹⁴	99.99%	100%
	Service restoration ¹⁵	< 60 minutes	< 60 minutes
NETVIGATOR	Network reliability ¹⁶	99.99%	99.995%
	Service restoration ¹⁷	99%	99.963%

Customer Health and Safety

There may be adverse health effects associated with excessive electromagnetic radiation. We continue to monitor electromagnetic field emittance from our facilities, ensuring compliance with standards relevant to radiation safety. Similar practices have been extended to our suppliers. We will continue to monitor the latest industry developments and guidelines from the Department of Health and the World Health Organisation to ensure the safety of our customers and community at large.

Content Dissemination and Responsible Marketing

We strive to ascertain our customers by providing clear and accurate information when they purchase our products and services. We comply with the Trade Descriptions Ordinance (Cap. 362) and offer guidelines and training to our sales and marketing employees. Since 2022, there has been no breach of relevant regulations on advertising and labelling.

¹⁴ The availability of the core network, i.e. the percentage of the uptime of the core network in a given observation period.

¹⁵ The mean time to recover a fault in the core network is targeted within 60 minutes after identification.

¹⁶ Availability of broadband network.

¹⁷ Provide restoration of services for customers within two calendar days.

In terms of content dissemination to viewers via our media platforms, our domestic television business operations are strictly adhered to the Broadcasting Ordinance (Cap. 562) and other relevant guidelines. The audience is informed by on-screen classification symbols and advisory messages before the screening of any programmes with content unsuitable for children such as violence, strong language, and nudity. For the underaged audience, we provide the option of parental lock on adult-oriented programmes and offer children-friendly channels and video-on-demand content on our paid TV platform.

As a technology conglomerate that drives innovation, we respect creativity and are committed to protecting the intellectual property rights of the Group as well as that of our customers, suppliers and fellow business partners. To ensure strict compliance with the relevant laws and regulations, we have an Intellectual Property Rights Policy in place for our staff to follow. This policy also covers our marketing materials to ensure that they are free from copyright infringement contents. In addition, we expect our suppliers and business partners to strictly adhere to the same set of policies and standards as stipulated in the clauses of our business contracts.

3.2 Customer Service and Feedback

The Group offers a wide range of communication channels to obtain customer feedback so that we can continuously improve our service quality.

To further enhance customer service quality, we have taken multiple innovative measures in this regard. Our AI-enabled Voicebot, for example, helps direct customers to the right services to assure customer satisfaction and create more capacity for agents to handle other complex support.



We have also deployed various performance monitoring schemes to improve service quality, including:

- Call monitoring programme
- Mystery shopper programme in retail locations
- Customer transaction and Net Promoter Score survey after calls and visits

All enquiries and complaints are handled and processed in strict adherence to the Group's Customer Service Charter.

During 2022, we received 54,829 compliments and 1,485 complaints from customers; and our mobile consultants have received over 90% Net Promoter Score.

3.3 External Recognition to Customer Service

Our efforts in providing excellent customer service have rewarded us with more than 160 industry awards from well-established organisations, including amongst others, Hong Kong Customer Contact Association, Hong Kong Management Association, Hong Kong Retail Management Association, and Mystery Shopper Service Association.

3.4 Customer Data Privacy

We adhere to the highest standard of data privacy in our efforts to comply with all relevant laws and regulations and protect our customer interests through robust internal control framework. For more details on Data Privacy policies and internal control, please refer to the “Sustainability at PCCW” chapter of this report. Since 2022, there has been no known issue of leakages, thefts, losses of customer data, or substantial complaints about non-compliance with regulations regarding the same issue. There has also been no breach of relevant laws and regulations across the Group, including the Personal Data (Privacy) Ordinance (Cap. 486), EU’s General Data Protection Regulation, etc.

In our Privacy Statement, we specify that all data is stored safely, and limited access is only granted to authorised employees subject to segregation of roles and responsibilities. We have taken all practical steps to ensure the accuracy and integrity of personal data. To reduce the risk of leakage, we have also ensured that the amount of personal data collected for each campaign or project is at the minimal and non-excessive. Personal information is collected on a “need-to-know” basis and we have strict procedures in place that require our employees to inform our customers of the purpose of collection. Furthermore, we do not keep data for longer than necessary to fulfil the purposes for which the data is used. When third-party data processor is engaged to handle or process personal information of our customers, we will use contractual obligations or other means to ensure that those data processors adhere to the Group’s relevant policies and standards on data handling and retention.

3.5 Customer Information Security

HKT has partnered with the global cybersecurity leader to launch managed SASE Service since 2022. Integrated HKT’s SD-WAN network with our partner security platform, which adopts Zero Trust Network Access, we can provide real-time security and visibility to every user-device-application at the point of interaction. In short, customers can safely access any application or data from any device at any time.

Enterprises have faced greater cybersecurity challenges along the exponential technological advancement. As a result, HKT Enterprise Solutions has established three Next Generation Security Operations Centres (“SOCs”) in Hong Kong, Macau and Guangzhou respectively to provide protection and support to our customers to monitor customer firewall, reduce cyber risks and fight against cybercrime. The SOCs are certified with ISO/IEC 27001 to deliver the effective solutions and services combating cybersecurity threats. With over a one-third of cyberattacks which are stealthy based, the endpoint detection and response services offer automatic protection to our customers which will respond to identified threats with speed and precision.

Despite the growing trends and speed of digital transformation, cyber risks and attacks are increasing due to additional exposure of attack surface utilising cloud computing. HKT provides cloud compliance check and vulnerability assessment services to assist our customers to narrow the cybersecurity exposure gap as much as possible. We continuously monitor and enable customers adopted cloud solutions in complying with standards such as ISO/IEC 27001 and the National Institute of Standards and Technology. We will also assess the vulnerability and overall attack surface trend of the enterprises to address any critical exposures and prioritise remediation activities.

4. CARING FOR THE COMMUNITY

The Group is committed to creating positive social impact through our community initiatives. We support the local community and participate in charitable events via sponsorships and in-kind contributions, as well as corporate volunteering.

Promote Social Inclusion and Support Upward Mobility

- Fostered growth and development of next generation

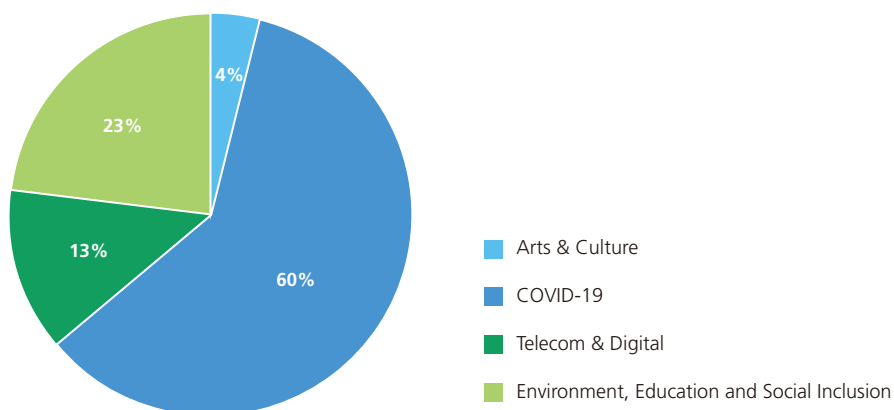
Drive Community Development and Address its Needs

- Provided fixed wireless and mobile broadband network services to over 3,000 community isolation facilities
- Offered free digital solutions to SMEs
- In-kind and monetary support for the needy
- Combated climate change and protected biodiversity through business partnership

UNSDGs:



Since 2022, we have continued to support our community across various aspects:



Monetary and In-kind Community Contribution

2022 Total Monetary and In-kind Contributions:	Volunteer Hours in 2022:
Over HK\$115 million	Over 2,600

4.1 COVID-19 Support

Ensuring Those Affected by COVID-19 Stay Connected and Well-supported

We have completed over 50 Government anti-epidemic projects resulting in the installation of over 7,000 telephone, fax, broadband and optical fibre lines for Contact Tracing Office, Public Health Laboratory Services Branches, Huo-Yan Laboratory, as well as quarantine centres and isolation facilities within a period of eight weeks. Meanwhile, to ensure that residents in the community isolation facilities ("CIFs") can stay connected with the community, the Group has provided fixed, wireless and mobile broadband network to over 3,000 CIFs. We have also assisted the Government in setting up over 3,000 hotlines for addressing any health-related enquiries from the public.

Besides the telecom support, our corporate volunteers have also helped with packing and delivering the anti-epidemic service bags to those in need.



Participation in various community projects by our corporate volunteers

Free Digital Solutions to SMEs

The COVID-19 pandemic has continued to pose a threat to the commercial business and the overall macro environment. As a long-standing partner to support SMEs, HKT has provided the following free digital solutions with an estimated value of HK\$32 million:

Digital Marketing Solutions

- Free BizWise solutions for three months, including SMS and WhatsApp promotion tools and customer service
- Free Online Yellow Pages search advertising service at yp.com.hk for 12 months
- Free Google Business Profile setup service

e-Commerce Solutions

- Free e-commerce solutions for six months, including online shop, online booking and online food ordering
- Free Business Anywhere service for six months, connecting business telephone numbers with the prefix "2" with our mobile app to help owners to manage their business anytime, anywhere

Comprehensive Payment Platform

- Tap & Go and FPS 0% transaction fee
- Three-month rental fee waiver for the Smart POS device supporting 16 payment methods, including all stored value facilities participating in Phase I of the 2022 CVS

Now TV for Commercial Business

- Complimentary selection of Now TV channels for three months, including Now News, Now BNC and Now 668

4.2 Nurturing the Next Generation

Strive and Rise Programme

As one of the key supporters of the “Strive and Rise Programme” (“Programme”), a 12-month mentorship programme and tripartite collaboration with the Government and community, we aim to build rapport with youngsters from underprivileged families. Over 100 corporate volunteers from various FUs and BUs have acted as mentors to students who are in their Form 1 to Form 3 from underprivileged families. The achievements of such programme have broadened students’ horizons, enhanced their self-esteem, developed a positive outlook on life with long term goals and incentivised them to strive for upward mobility.

As Vice-Chair of the Programme’s Partners’ Board, the Group will continue to contribute to the development of the Programme by offering a wide variety of activities to enrich all participants’ learning.



Kick-off Ceremony for the Programme



Kick-off Ceremony for the Programme

4.3 Combating Climate Change and Protecting Biodiversity

Partnership with Mastercard to Build Sustainable Smart City through Priceless Planet Coalition

HKT has joined Mastercard's Priceless Planet Coalition (the "Coalition") to support the collective goal of restoring 100 million trees globally by 2025.

Reforestation is considered one of the most effective tools to combat climate crisis and restore biodiversity. Each partner in the Coalition contributes by funding forest restoration and promoting climate-friendly actions through its network globally.



HKT's collaboration with Mastercard in its Priceless Planet Coalition

4.4 Telecom Support

HKT as one of the largest telecom service providers, is keen to render different kinds of telecom support to the community, especially during COVID-19. It includes donation of SIM cards and devices to NGOs and charitable organisations, such as St. James' Settlement, Neighbourhood Advice-Action Council, Mighty Oaks Foundation and "Share for Good" crowd donation platform initiated by New World Development, with a total estimated value of HK\$77.70 million covering a wide range of beneficiaries including the elderlies, disabled persons, low-income families and more.



5. BECOMING AN EMPLOYER OF CHOICE

Focusing on talent diversification and retention are crucial to cultivating an innovated and technology-driven business like ours to stay competitive. We endeavour to cultivate an inclusive and merit-based culture and to improve our human capital management strategies for the development of outstanding talents across all levels.

Strengthen the Talent Pool

- Organised talent acquisition programmes to attract potential hires
- Tailored learning and development programmes to cultivate talent according to their roles and needs

Build a Positive Working Environment

- Maintained diversity and inclusiveness in the workplace
- Promoted employee well-being through a series of workshops and Employee Assistance Programme
- Developed Augmented Reality ("AR"), drones, 5G and Edge Computing to assist site inspection or field services

UNSDGs:



5.1 Talent Attraction, Development and Retention

In the technology industry bombarded by a constant stream of changes, we pursue talent capable of forward-thinking actions to manage emerging challenges. We empower our people by investing in their professional and personal development and equipping them with skills best for the future.

The Group has developed a holistic human capital management framework with the mission to drive our talent and business towards success.

Talent Attraction

Our talent acquisition and cultivation programmes aim to attract high-calibre and tech savvy candidates with a keen interest in serving our clients' evolving needs for emerging technologies. Since 2022, the Group has collaborated with the Government and education institutions to conduct several talent acquisition programmes for building future pipelines, such as "Earn & Learn Scheme" and "The Hong Kong Polytechnic University Innovation Challenge", which have provided opportunities for engaging young talent.



Collaboration with educational institutions to attract talent

Earn & Learn Scheme: Our Collaborative Effort with the Government and Vocational Training Council

The scheme is a two-year comprehensive training programme, launched by the Vocational Training Council in collaboration with the Government and HKT. We are committed to providing apprentices with a solid foundation of theoretical knowledge and practical skill through classroom learning and on-the-job training. At the end of the programme in 2022, we have welcomed a total of 22 apprentices joining Engineering and Information Technology units.

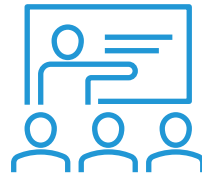


Taking part in the "Earn and Learn Scheme" by apprentices

Talent Development

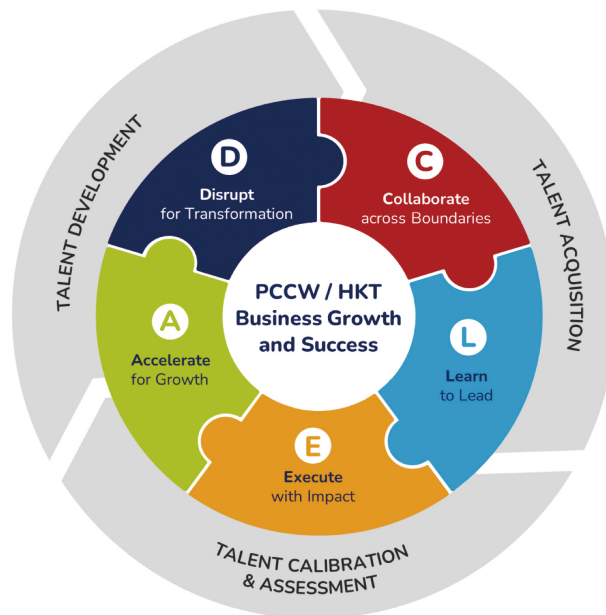
Our employees are the backbone of the Group. We have set forth various learning and development programmes, and initiatives for cultivating highly skilled and innovative talent. During 2022, we have provided various online and offline training programmes and platforms to ensure they have acquired the skills and knowledge required to succeed. We have also launched a new virtual learning platform, “Skills Hub” to facilitate more readily mobile access to learning. The platform also promotes the concept of mutual learning culture encouraging employees to proactively share and learn through different means, including small-group knowledge sharing sessions and mentorships.

Average training hours
(per employee at year end
excluding part-time staff)



22.9hours

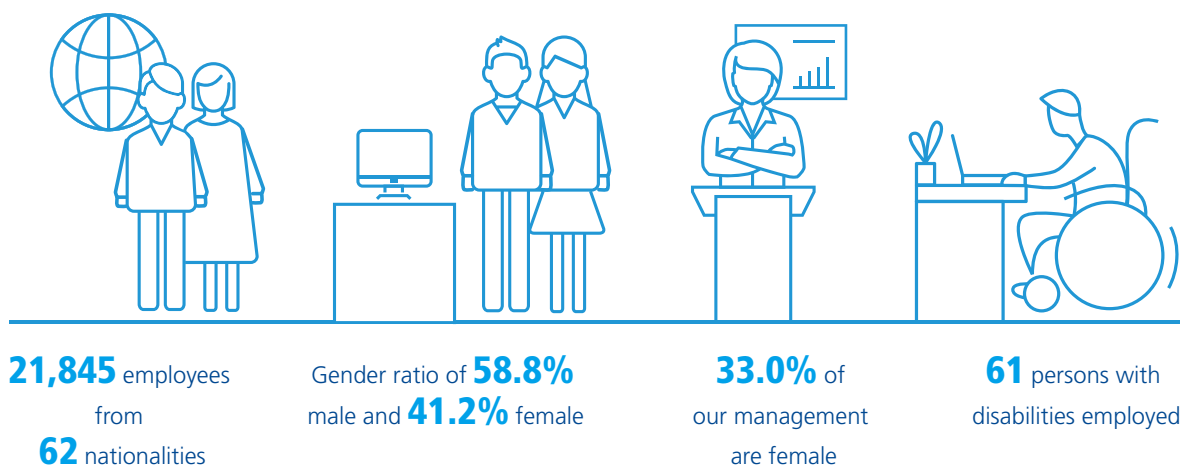
In addition, we have also piloted a new leadership learning programme, “Collaborate & LEAD” as we believe behavioural attributes play a key role in a fast-paced work environment. This programme offers a series of digital and experiential learning activities, together with real-life scenarios, such that our people managers can better comprehend the different behavioural attributes and lead teams more effectively towards a common goal of sustaining business growth. The concept of “Collaborate & LEAD” is specified as:



5.2 Diversity and Social Inclusion

We conduct business with the objective to strengthen our commitment to diversity and social inclusion. We strive to eliminate discrimination and ensure our employees are equally treated with respect and dignity regardless of their gender, disability, family status, race, colour, descent, nationality or ethnic origins, religion, age, sexual orientation, trade union membership or other condition recognised by law. Both internal and external stakeholders are encouraged to report actual or suspected misbehaviours in confidence to the Audit Committee via the Group's independent whistleblowing channel. For more details on Group's Whistleblower Policy and Procedures Manual, please refer to "Sustainability at PCCW" chapter of this report.

The Group strictly complies to all relevant labour laws and regulations in Hong Kong and other jurisdictions where we operate, including but not limited to the Employment Ordinance (Cap. 57 of the Laws of Hong Kong); the Sex Discrimination Ordinance; the Disability Discrimination Ordinance ("DDO"); the Family Status Discrimination Ordinance; and the Race Discrimination Ordinance. Relevant regulatory policies and guidelines have been clearly communicated to our staff members through induction programmes and staff handbook. In our business operations, child and forced labour are strictly prohibited. During 2022, there has been no confirmed incidents of non-compliance with such laws or regulations.



5.3 Employee Well-being

Fostering employee well-being is one of the key priorities in human capital management strategies. During 2022, the Group has various initiatives to enhance our staff well-being. Some of the examples include:

- Organised virtual health talks with FWD and Hong Kong Adventist Hospital, covering epidemic, ketogenic diet, and mental health
- Arranged financial wellness talks with the Investor and Financial Education Council for better wealth management
- Offered Employee Assistance Programme to provide free professional counselling service, covering work or personal life consultation
- Promoted breastfeeding support in the workplace by setting up lactation facilities for female staff
- Offered work from home arrangement to keep our staff safe from the fifth wave of the COVID-19 pandemic

5.4 Occupational Safety and Health

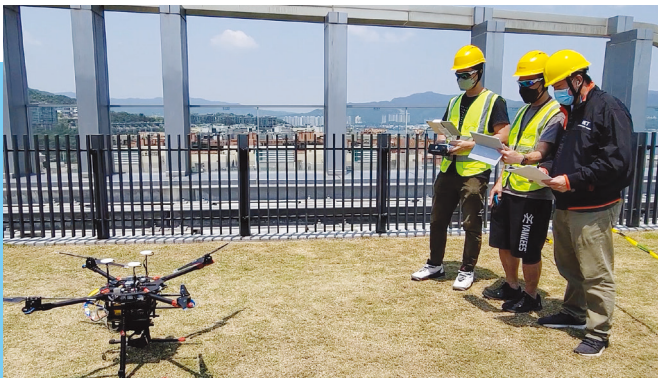
The Group adheres to and maintains high health and safety standards over the course of our business operations. A Statement of Safety and Health has been issued with our commitment to preventing accidents and injuries at work. Our Occupational Safety and Health (“OSH”) performance is regularly monitored and assessed. The Group’s OSH Committee is responsible for monitoring the relevant internal rule and reviewing it from time to time. Furthermore, the OSH Council (“OSHC”) conducts a safety audit every six months and our safety management system has been considered as effective and efficient in the audit report.

Some of our safety training courses include:

- OSHC Automated External Defibrillator and Cardio Pulmonary Resuscitation
- Accident investigation skills
- Certificate of Competence in Display Screen Equipment Assessment
- Confined space training
- Confined Space Certified Worker Training
- Standard First Aid Certificate Training
- Work-at-height training

AR and Drone-assisted Field Services

Based on the advanced technologies such as AR, 5G and Edge Computing, HKT has empowered the workflow on mobile cell site inspection and field services using drone, with improved safety to our staff and greater operational efficiency. The process harnesses the advantages of low latency and high capacity (4K video) by 5G network; and drone navigation and “digital assistant” by AR technology.



Inspecting sites with drones

6. ENHANCING THE GROUP'S ENVIRONMENTAL RESILIENCE AND AGILITY

In response to the global climate crisis, we have leveraged technology to facilitate reducing GHG emissions, enhancing operation and energy efficiency, and promoting sustainable resource consumption. We will continue improving our environmental performance and collaborating with different stakeholders, including industry leaders, customers, the Government, and other organisations to deliver our sustainability agenda. In this chapter, we will evaluate our contributions and impacts in relation to energy, waste and water consumption.

Reduce and Withstand the Climate Change-related Impact

- Enhanced energy efficiency with our own Integrated Smart Energy Solution
- Adopted AI and Machine Learning on energy control and monitoring
- Reduced fossil fuel consumption through renewable energy adoption

Consume Resources in a Sustainable Way

- Reduced, recycled and reused the resources
- Adhered to water stewardship through automations and condensed water collection

UNSDGs:

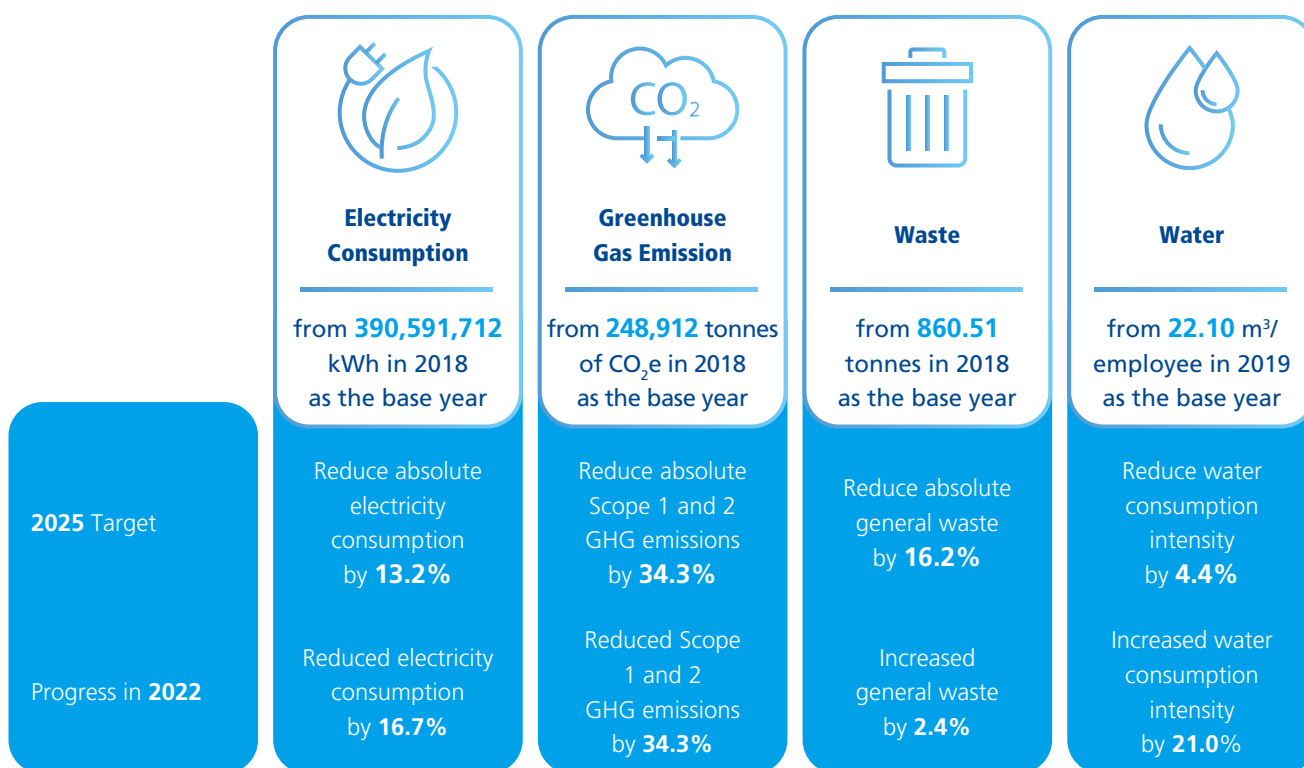


6.1 Progress to our Environmental Targets

We are committed to reducing our impacts to the environment in our business operation in accordance with the applicable environmental laws and regulations. These include the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598), Product Eco-responsibility Ordinance (Cap. 603), Product Eco-responsibility (Regulated Electrical Equipment) Regulation (Cap. 603B), and Buildings Energy Efficiency Ordinance (Cap. 610).

We have also established internal standards such as the Gas Emission Reduction Policy, Energy and Water Management Policy and Guidelines and set forth procedures and programmes to promote the proper use of resources.

Since 2021, we have announced a series of environment targets to be achieved by 2025. Summarised below is our progress as at year end 2022:



Electricity consumption and greenhouse gas emissions have lowered gradually compared to the base year in 2018. The Group uses a cloud-based data platform to collect environmental data from FUs and BUs and monitors the actual progress against our targets. The Environmental Advisory Group will also discuss the Group's overall environmental performance and identify areas for improvement quarterly.

6.2 Enhancing Energy Efficiency

A major part of our energy consumption is for powering communication and connectivity through our telecommunications network and data centres. We are committed to the proper management of our energy consumption. We have been a signatory to the Energy Saving Charter and the Charter on External Lighting, which have been established by the Environment and Ecology Bureau since 2016. A few key energy saving measures are highlighted below:

- Utilised Integrated Smart Solution to regulate the load of our buildings by achieving close to 10 % of energy savings
- Introduced a total of eight Euro 6 vehicles and three electric cars
- Applied solar-prevention materials to reduce heat in rooms during daytime
- Adopted retro-commissioning to optimise energy usage without replacing existing equipment, including switching off non-essential display monitors in 24-hour operation centres, maintaining optimal temperature between 24°C and 26°C, shortening the operating hours of air conditioners and lights in some offices and installing occupancy sensors in various office locations, staircases, and carparks



6.3 Renewable Energy Adoption

To echo our decarbonisation strategy and promote the use of renewable energy, we have participated in CLP's Renewable Energy Feed-in Tariff Scheme.

Solar Photovoltaic ("PV") Panels

Since our first installation of solar PV panels on the rooftop of our Junk Bay Exchange in 2021, we have been progressively increasing the consumption of renewable energy in our network infrastructure. We have also commenced the installation of solar power system at Shek O Exchange and is currently work-in-progress. Around 10% of the electricity that the Tin Shui Wai Exchange consumed during 2022 has been generated from the solar panels on its roof. Looking forward, we will continue to explore the feasibility of adopting more renewable energy sources for our operations to reduce carbon emissions.

As of 31 December 2022, renewable energy has been generated from the following solar power systems:

- Junk Bay Exchange
- Tin Shui Wai Exchange
- Lai Chi Kok Exchange



The solar power systems at Tin Shui Wai Exchange

6.4 Waste Management

The Group prioritises responsible and sustainable consumption behaviours. We have implemented strict waste management instructions to ensure proper waste handling and disposal procedures. We regularly evaluate the effectiveness of our waste management approach, including reuse, recycling, reprocessing and responsible waste disposal, based on the waste hierarchy principle. We have also carried out a biennial solid waste audit for our offices in PCCW Tower. The audit shows a comprehensive overview of waste generation in our operations and provides us with insights into those improvement areas for achieving better waste management.

Hazardous Waste

For hazardous waste such as fluorescent tubes, industrial batteries, waste electrical and electronic equipment (“WEEE”) and general office batteries are handled by approved chemical waste collectors and specialist contractors. The Group has been providing complimentary removal services for our customers whenever they purchase regulated electrical equipment in response to the Government’s Producer Responsibility Scheme for WEEE. The collected waste equipment is sent to certified recyclers for proper treatment to enable resource recovery. Since 2022, we have assisted customers removing more than 1,600 pieces of WEEE. When our customers replace their mobile devices, we also offer trade-in and preliminary valuation services to reduce waste generation and promote a circular economy.

Furthermore, we have collected and recycled over 5,000 old mobile handsets and accessories from customers for donation to Caritas Computer Workshops since 2022. During the same year, we have also collaborated with Hong Kong Battery Recycling Centre to recycle waste lead acid batteries locally. Since 2022, a total of 215.16 tonnes of waste industrial batteries has been recycled.

Recycling Statistics at a Glance



Toner and ink cartridges

2021
1,152 pieces
2022
1,438 pieces



Scrap materials

2021
243,713 pieces
2022
206,696 pieces



Copper

2021
10.19 tonnes
2022
7.35 tonnes



Iron and steel

2021
1.44 tonnes
2022
12.28 tonnes



Paper

2021
118.48 tonnes
2022
95.89 tonnes



Industrial batteries

2021
244.01 tonnes
2022
215.16 tonnes

Non-hazardous Waste

Non-hazardous waste is in general handled by professional cleaning service providers and contractors in compliance with local regulations. The two main types of non-hazardous waste include waste from office and construction waste from the renovation of our retail outlets. Our office furniture is reused following shop relocation and renovation whenever possible to minimise waste generation.

Paper is a major source of waste across our operations and value chain. As part of our commitment to paperless billing, we have digitalised billing services for our customers over the past few years. By encouraging our customers to switch to electronic bills for our various services, we have saved over 73 million sheets of paper. Whenever paper is required by customers or for specific reasons, only paper that is certified for the Endorsement of Forest Certification will be used.

Further to paper waste management, the Group has extended its non-hazardous waste reduction effort to our canteens. Since 2022, we have phased out single-use materials such as plastic straws and cutlery in four canteens and offered eco-friendly alternatives instead. To better manage our municipal solid waste, we have launched a food waste recycling programme to collect food waste in our staff canteen in Lai Chi Kok Exchange since 1 October 2022. Looking forward, we aim at reducing food waste disposal rate by further reducing overproduction and recycling.

6.5 Water Management

Guided by our Energy and Water Management Policy and Guidelines, the Group is committed to conserving, reducing, and reusing water in our operations. Since 2022, we have installed water-cooled condensers for collecting wastewater for flushing and sensors on the faucet to proactively identify water-saving opportunities and control water consumption.



6.6 Sustainable Finance

To integrate our ESG philosophy in our funding objectives, we have actively engaged in issuing sustainability-linked finance instruments. This reinforces our long-term commitment to mobilise corporate actions towards a greener future and create sustainable value to our stakeholders.

Sustainability-linked Loans



As at 31 December 2022, the Group has over US\$2 billion of sustainability-linked loans raised from financial institutions. KPIs have been used to evaluate the Group's sustainability performance, including GHG emissions, energy consumption and waste management. To assess our environmental impacts and optimise the financing terms, the performance data has been closely tracked against the agreed environmental targets on an annual basis.

Green and Sustainable Deposits



During 2022, we have continued to place our liquidity in green and sustainable deposits with financial institutions. Our participation in the deposit schemes has enabled us to work together with the financial community in supporting ESG-oriented projects and organisations, and accelerating the transition to a low-carbon, climate-resilient and sustainable economy.

7. NETTING THE VALUE CHAIN

Working with value chain partners is one of the core practices of the Group's sustainability strategy. Our transformation and sustainability goals depend largely on long-term and constructive relationships with our suppliers. As a founding member of the Sustainable Procurement Charter established by the Green Council, we are committed to sourcing and monitoring suppliers who are committed and adhered to adopting sustainable practices.

Source from Responsible Suppliers

- Reinforced strict compliance to the Supplier Code of Conduct
- Adopted continuous supplier management and assessment to monitor their performance

Strengthen Collaboration with Local Suppliers

- Encouraged sustainable procurement by sourcing from local where possible

UNSDGs:



7.1 Supplier Code of Conduct

The Group has established the Supplier Code of Conduct (the “Code”) to set out clear expectations for our suppliers to maintain the same underlying principles for conducting business ethically in line with global compliance standards. The Code is publicly available on our Group’s official website and covers a wide range of topics including:

- Legal and Regulatory Compliance
- Anti-bribery and Corruption
- Labour Guidance
- Occupational Health and Safety
- Conflict of Interest
- Environment Management
- Supplier Diversity
- Engagement with the Group Strategic Purchasing
- Evidence and Review

We review the Code from time to time in order to stay abreast of the latest applicable laws and regulations. To ensure and maintain a common standard of ethical conduct and compliance requirements across the Group, training has been provided to both new and existing employees on procurement, supply chain management procedures as well as the understanding of related policies to ensure our prevailing procurement practices and protocols are strictly followed.

The Group has also formulated and adopted a set of Group Purchasing Policy and Principles (“GPPP”) for supplier selection and management process. The GPPP not only provides guidance to facilitate the implementation of control points on each of the supply chain processes to transform the Group into a responsible organisation, it also sets out criteria for the Group to manage the procurement practices effectively and align with our corporate and social responsibilities.

7.2 Continuous Supplier Assessment

We actively review our engagements with suppliers and their standards by adhering to the GPPP. To achieve a higher standard, we have attained the ISO 9001:2015 quality management system certification to continue monitoring our supply chain management and the performance of our suppliers.

Supplier Selection

We have adopted a stringent approach before engaging new suppliers. Suppliers are requested to complete the Vendor Registration Form, which contains an assessment on their quality assurance, state of ESG performance and corporate governance. Sustainability-related terms are included in our standard procurement contracts that require suppliers to adhere to compliance of environmental and OSH regulations in line with Group’s standards and practices. As part of our screening process, we require new suppliers to provide relevant environmental and social documents as evidence to demonstrate their commitments on embedding ESG related initiatives in their operations.

Supplier Assessment

FUs and BUs are required to conduct and evaluate supplier performance on a regular basis, including their quality of delivery and their operations impact on the environment, people, and communities they serve.

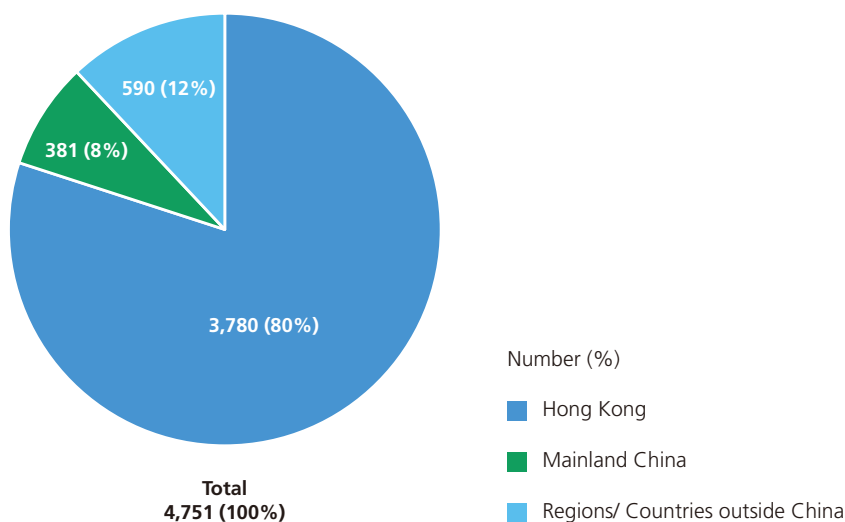
As part of the ongoing supplier assessment, the Group also conducts quarterly review to evaluate the sustainability practices employed by our existing suppliers. In order to promote sustainable procurement, the Group will request corrective actions from any suppliers who receives an unsatisfactory rating during the review. If the supplier consistently fails to comply with our standards, we may consider terminating the engagement or, in extreme cases, blacklisting the supplier. Since 2022, visits at 76 suppliers have been conducted.

7.3 Sustainable Procurement

As a founding member of the Sustainable Procurement Charter established by the Green Council, we are committed to promoting sustainable procurement practices by monitoring suppliers' environmental and social compliance as well as their sustainability risk profile, together with continual improvement. This charter also provides a cohesive platform for those who are interested in sustainability working collectively towards by one of the UNSDGs on Responsible Consumption and Production.

Sourcing from local production is one of the effective ways to reduce carbon footprint, particularly on GHG emissions attributed to transportation and logistics. Amongst our 4,751 suppliers during 2022, about 80% of them are based in Hong Kong.

Distribution of Suppliers by Geographical Locations



We have adopted a long-term approach to managing and maintaining supplier relationships by categorising them into critical tier-1¹⁸ and non-tier-1 suppliers¹⁹. By using such categorisation, we are able to adopt specific approaches and requirements for different tiers of suppliers.

Supplier Types	Number
Critical tier-1 suppliers	24
Non-tier-1 suppliers	4,727

¹⁸ Suppliers whose goods, materials, services (including intellectual property (IP)/ patents) have a significant impact on the competitive advantage, market success or survival of the company; and with high value and volume turnover.

¹⁹ Suppliers who provide their products and services to other suppliers at the next level (not manufacturer, non-direct) in the chain, distributors, resellers.

8. ASSURANCE REPORT



VERIFICATION STATEMENT

Scope of Verification

Hong Kong Quality Assurance Agency ("HKQAA") has been commissioned by PCCW Limited ("PCCW") (SEHK: 0008) to undertake an independent verification for its Environmental, Social and Governance Report 2022 ("The Report").

The scope of HKQAA's verification covers the data and information associating to PCCW's sustainability performance as described in the Report for the period of January 1, 2022 to December 31, 2022.

Level of Assurance and Methodology

The process applied in this verification was referring to the International Standard on Assurance Engagements 3000 (Revised) – Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. Our evidence gathering process was designed to obtain a reasonable level of assurance for devising the verification conclusion. The extent of this verification process undertaken was provided for the criteria set in The Environmental, Social and Governance Reporting Guide ("ESG Reporting Guide") to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited.

The systems and processes for collecting, collating and reporting the environmental performance data were verified. Our verification procedure covered reviewing of relevant documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the raw data and supporting evidence of the selected samples during the verification process.

Independence

PCCW is responsible for the collection and presentation of the information presented. HKQAA does not involve in calculating, compiling, or in the development of the Report. Our verification activities are independent from PCCW.

Conclusion

On the basis of our verification results and in accordance with the verification procedures undertaken, it is the opinion of the HKQAA's verification team that:

- The Report has complied with all mandatory disclosure requirements and "comply or explain" provisions outlined in the ESG Reporting Guide;
- The Report illustrates PCCW's sustainability performance in a balanced, comparable, clear and timely manner; and
- The data and information stated in the Report are reliable and complete.

The Report reflects appropriately PCCW's context and materiality of its sustainability issues and allows stakeholders to have a clear understanding of its commitments and stewardship towards sustainability management.

Signed on behalf of Hong Kong Quality Assurance Agency

A handwritten signature in black ink, appearing to read 'Connie Sham', is positioned above the printed name and title.

Connie Sham
Head of Audit
March 2023

9. EXTERNAL CHARTERS AND MEMBERSHIP

External Charters

Name of Association	Name of Charter
Department of Health / Occupational Safety & Health Council	Joyful@Healthy Workplace Charter
Environment and Ecology Bureau	Charter on External Lighting
Environment and Ecology Bureau	Energy Saving Charter
Green Council	Sustainable Procurement Charter
Joint Utilities Policy Group	Charter on excavation works

Membership

Name of Association	Type of Membership
3rd Generation Partnership Project	Individual Member
BCI Central	Member
Business Environment Council	Council Member
Communications Association of Hong Kong	Full Member
Employers' Federation of Hong Kong	Member
Hong Kong Association for Customer Service Excellence	Founding Member and Affiliate Member
Interactive Advertising Bureau Hong Kong	Corporate Member
Hong Kong Association of Amusement Parks and Attractions	Gold Member
Hong Kong Computer Society	Corporate Member
Hong Kong Customer Contact Association	Member
Hong Kong E-vehicles Business General Association	Corporate Member
Hong Kong Information Technology Federation	Full Membership

Name of Association	Type of Membership
Hong Kong Institute of Human Resource Management	Corporate Member
Hong Kong Institute of Marketing	Member
Hong Kong Management Association	Charter Member
Hong Kong Wireless Technology Industry Association	Executive Committee Member
Interactive Advertising Bureau Hong Kong	Corporate Member
Metro Ethernet Forum	Service Provider Member
Occupational Safety & Health Council – Green Cross Group	Member
Society of IATA Passenger Agents	Basic Member
The Asia Video Industry Association	Patron Member
The Association of Accredited Advertising Agencies of Hong Kong	Affiliated Member
The Green Earth	Green Earth Companion, Water Category
The Hong Kong Advertisers Association	Full Member
The Hong Kong Council of Social Service	Caring Company Patron's Club – Coral Member
The Hong Kong General Chamber of Commerce	Corporate Member
The International Cable Protection Committee	Member
The World Teleport Association	Regular Member – Medium Corporation
Wireless Broadband Alliance	Operator Member

10. PERFORMANCE DATA SUMMARY

The tables below present a quantitative overview of the Group's sustainability performance for the year ended 31 December 2022, unless otherwise stated, and historical data is presented for comparison purpose.

Environmental Performance

Indicators	Unit	2020	2021	2022	Change (2022 vs 2021)
Air Emission ²⁰					
Sulphur oxides (“SOx”)	kg	6.03	5.97	5.33	-10.72%
Nitrogen oxides (“NOx”)		2,950.00	2,775.00	1,995.98	-28.07%
Particulate matter (“PM”)		265.41	252.11	181.05	-28.19%
Energy Consumption					
Total energy consumption	GJ	1,352,146	1,304,983	1,185,070	-9.19%
Energy consumption intensity ^{21,22}	GJ/employee	96.71	101.22	95.69	-5.46%
	GJ/HK\$ million	37.12	36.81	32.86	-10.73%
Indirect Energy Consumption					
Electricity consumption	kWh	371,067,770	358,192,525	325,170,141	-9.22%
Electricity intensity ^{21,22}	GJ/employee	95.55	100.01	94.52	-5.49%
	GJ/HK\$ million	37.12	36.37	32.46	-10.75%
Direct Energy Consumption					
Petrol fuel – vehicle fleet	L	108,031	97,912	90,214	-7.86%
Diesel fuel – vehicle fleet		274,599	281,043	248,566	-11.56%
Diesel fuel – standby emergency generators		73,847	32,335	44,980	39.11%
Renewable Energy Consumption					
Solar energy ²³	kWh	–	–	124,757	–

²⁰ Air emissions are generated from petrol and diesel fuel combustion in vehicles. The emission factors are adopted from "How to prepare an ESG Report – Appendix 2: Reporting Guidance on Environmental KPIs" published by HKEX.

²¹ The total number of full-time equivalent ("FTE") employees in Hong Kong is 12,385 as of 31 December 2022. Consistent with that of the prior years, the Group has used the total number of FTE employees in Hong Kong as the basis for the intensity calculations of energy, electricity, GHG emissions, water and waste to facilitate the tracking progress of our environmental targets.

²² The revenue of the Group presented is used as the basis for energy, electricity, GHG emissions, water and waste intensity calculations, while the comparative revenue figures in 2021 was restated in accordance with the latest PCCW's results announcement. As a result, the intensity calculations in 2021 were restated accordingly.

²³ Relevant figures have been disclosed from 2022 onwards.

Indicators	Unit	2020	2021	2022	Change (2022 vs 2021)
GHG Emissions²⁴					
Direct GHG emissions (Scope 1) ²⁵	tCO₂e	7,359	6,548	4,336	-33.78%
Indirect GHG emissions (Scope 2) ²⁶		229,092	186,406	159,170	-14.61%
Other indirect GHG emissions (Scope 3) ²⁷		1,252.37	1,248.89	1,044.90	-16.33%
• Paper consumption		1,039.12	1,023.07	833.61	-18.52%
• Water consumption and sewage discharge ²⁸		213.25	225.82	211.29	-6.43%
Total GHG emissions (Scope 1 + 2 + 3)		237,703	194,203	164,551	-15.27%
GHG emissions intensity ^{21,22}	tCO₂e/ employee	17.00	15.06	13.29	-11.75%
	tCO₂e/ HK\$ million	6.61	5.48	4.56	-16.79%
Water Consumption					
Total water consumption ²⁹	m³	341,744	366,000	331,182	-9.51%
Water consumption intensity ^{21,22}	m³/employee	24.44	28.39	26.74	-5.81%
	m³/HK\$ million	9.50	10.32	9.18	-11.05%

²⁴ GHG emissions are calculated based on "Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong (2010 Edition)" published by the Environmental Protection Department ("EPD") and the Electrical and Mechanical Services Department ("EMSD") of the Hong Kong SAR Government, unless otherwise stated in the following notes.

²⁵ Scope 1 emissions comprise HFC and PFC emissions from the use of refrigerants and emissions from our standby emergency generators and vehicle fleet that run on diesel as well as our other vehicle fleet that runs on petrol. The global warming potentials used for calculation are adopted from Intergovernmental Panel on Climate Change ("IPCC") Fifth Assessment Report.

²⁶ Scope 2 emissions are generated from the electricity consumed by PCCW's major operations with individual meters. Emissions factors are adopted from the latest sustainability reports of local power companies.

²⁷ The figures on Scope 3 emissions are generated from office paper consumption, water consumption and sewage discharge.

²⁸ The emission factors for freshwater processing and sewage processing are adopted from the latest annual report of the Water Supplies Department and the sustainability report of the Drainage Services Department.

²⁹ Water consumption of PCCW's major operations with individual meters.

Indicators	Unit	2020	2021	2022	Change (2022 vs 2021)
Waste Management: Hazardous Waste					
Solid waste ³⁰	tonnes	549.90	246.85	217.87	-11.74%
WEEE disposal ³¹					
• Electronic and IT equipment	pieces	47,021	68,280	37,133	-45.62%
• Equipment cables	meters	127,790	209,417	100,846	-51.84%
Waste Management: Non-hazardous Waste					
General Waste ³²	tonnes	766.61	824.47	881.10	6.87%
Construction waste		171.80	742.79	326.76	-56.01%
Total non-hazardous waste		938.41	1,567.26	1,207.86	-22.93%
Non-hazardous waste intensity ^{21,22}	tonnes/ employee	0.07	0.12	0.10	-16.67%
	tonnes/ HK\$ million	0.03	0.04	0.03	-25.00%
Waste Management: Waste Recycled					
Scrap materials ³³	pieces	191,026	243,713	206,696	-15.19%
Toner and ink cartridges		1,454	1,152	1,438	24.83%
Paper	tonnes	107.06	118.48	95.89	-19.07%
Scrap metals ³⁴		26.24	11.63	19.63	68.79%
Material Consumption: Packaging Materials					
Shopping bags	tonnes	18.60	16.16	11.04	-31.68%

³⁰ Solid waste includes industrial batteries (valve-regulated lead-acid battery), office batteries and fluorescent tubes.

³¹ The figure is reported on a Group basis comprising HKT and parent company PCCW. It does not include WEEE disposed by the Group on behalf of customers.

³² General waste mainly includes general office waste.

³³ Scrap materials such as scrap cables, scrap telephones, obsolete devices and accessories, modems and routers, set-top boxes, WEEE and transmission equipment.

³⁴ Scrap metals include copper, metal and steel.

Social Performance³⁵

Employee Workforce

Indicators	Unit	2020	2021	2022
Total workforce ³⁶	number	22,672	22,077	21,845
Total Workforce by Employment Type				
Full-time	number (%)	21,236 (93.67)	20,236 (91.66)	20,386 (93.32)
• Male	%	–	–	60.59
• Female		–	–	39.41
Part-time	number (%)	1,436 (6.33)	1,841 (8.34)	1,459 (6.68)
• Male	%	–	–	34.34
• Female		–	–	65.66
Total Workforce by Contract Type				
Permanent	number (%)	–	–	15,630 (71.55)
Fixed term contract		–	–	6,215 (28.45)
Total Workforce by Gender				
Male	number (%)	13,542 (59.73)	12,915 (58.50)	12,853 (58.84)
Female		9,130 (40.27)	9,162 (41.50)	8,992 (41.16)
Total Workforce by Employment Category				
Senior management	number (%)	861 (3.80)	879 (3.98)	907 (4.15)
Middle management		6,582 (29.03)	6,572 (29.77)	6,722 (30.77)
Below middle management		15,229 (67.17)	14,626 (66.25)	14,216 (65.08)
Total Workforce by Age Group				
Age 30 or below	number (%)	6,841 (30.17)	6,186 (28.02)	5,800 (26.55)
Age between 31–50		12,511 (55.18)	12,513 (56.68)	12,680 (58.05)
Age 51 or above		3,320 (14.65)	3,378 (15.30)	3,365 (15.40)
Total Workforce by Geographical Location				
Hong Kong	number (%)	14,805 (65.30)	13,984 (63.34)	13,391 (61.30)
Outside Hong Kong		7,867 (34.70)	8,093 (36.66)	8,454 (38.70)

³⁵ Data which marked with a symbol “–”, is not available in previous years and new data collection to correspond to the updated HKEX, GRI and other standards, in order to provide additional information on our sustainability performance to the audience.

³⁶ To enhance our 2022 ESG reporting disclosure, we have revisited and updated the methodology for calculating the total workforce to reflect the actual headcount for the 3 years comparatives ending 31 December 2022, while the employee figures expressed in the annual report are based on FTE.

New Hires

Indicators	Unit	2020	2021	2022
Total new hires ³⁷	number	–	–	3,507
New hires rate ³⁸	%	–	–	22.44
New Hires by Gender				
Male	number (%)	–	–	2,091 (59.62)
Female		–	–	1,416 (40.38)
New Hires by Age Group				
Age 30 or below	number (%)	–	–	1,436 (40.94)
Age between 31–50		–	–	1,847 (52.67)
Age 51 or above		–	–	224 (6.39)
New Hires by Geographical Location				
Hong Kong	number	–	–	2,630
Outside Hong Kong		–	–	877

³⁷ Total new hire applies to permanent employees only.

³⁸ New hires rate is calculated as “total number of new hires (permanent employees) in the reporting year divided by total number of permanent employees as of 31 Dec of the reporting year and then multiplied by 100%”.

Employee Turnover³⁹

Indicators	Unit	2020	2021	2022
Total employee turnover	number	–	–	6,033
Employee turnover rate	%	26.12	36.80	30.16
Employee Turnover Rate by Gender				
Male	%	–	38.00	26.05
Female		–	36.00	36.55
Employee Turnover Rate by Age Group				
Age 30 or below	%	–	83.00	65.73
Age between 31–50		–	25.00	23.12
Age 51 or above		–	8.00	8.33
Employee Turnover Rate by Geographical Location				
Hong Kong	%	–	24.00	22.96
Outside Hong Kong		–	–	41.62

³⁹ Turnover rate is calculated as “total number of permanent employees voluntarily leaving employment during the reporting year divided by the yearly average number of permanent employees and then multiplied by 100%”.

Occupational Health and Safety

Indicators	Unit	2020	2021	2022
Total number of hours worked	hours	–	–	24,770,000
Work-Related Fatalities as a Result of Work-Related Injury				
Work-related fatalities reported	number	0	0	0
Work-related fatality rate	%	0	0	0
Work-Related Injuries				
Lost days due to work injuries	days	2,564	1,374	2,997
High-consequence work-related injuries (excluding fatalities)	number	–	–	0
High-consequence work-related injuries rate (excluding fatalities)	% (per 200,000 hours worked)	–	–	0
Recordable work-related injuries	number	–	–	24
Rate of recordable work-related injuries	% (per 200,000 hours worked)	–	–	0.11
Work-Related Ill Health				
Work-related fatalities as a result of work-related ill health	number	–	–	0
Cases of recordable work-related ill health	number	–	–	0

Employee Development and Training

Indicators	Unit	2020	2021	2022
Total training hours	hours	–	243,792	466,769
Average Hours of Training by Gender ⁴⁰				
Male	hours	–	11.10	17.13
Female		–	13.50	31.75
Average Hours of Training by Employment Category ⁴⁰				
Senior management	hours	–	4.60	7.73
Middle management		–	5.40	4.40
Below middle management		–	16.00	33.68
Employees Trained by Gender ⁴¹				
Male	%	–	64.00	50.39
Female		–	74.00	72.96
Employees Trained by Employment Category ⁴¹				
Senior management	%	–	64.00	58.03
Middle management		–	47.00	37.10
Below middle management		–	79.00	71.03
Employees Receiving Regular Performance Reviews by Gender				
Male	%	–	–	90.27
Female		–	–	86.35
Employees Receiving Regular Performance Reviews by Employment Category				
Senior management	%	–	–	95.46
Middle management		–	–	93.82
Below middle management		–	–	80.24

⁴⁰ Average training hours is calculated as “total training hours divided by the total number of employees at year end (excluding part-time and temporary staff)”.

⁴¹ Percentage of employees trained is calculated as “total number of trained employees divided by the total number of employees at year end (excluding part-time and temporary staff) and then multiplied by 100%”.

Supply Chain Management

Indicators	Unit	2020	2021	2022
Total number of suppliers	number	3,100	4,150	4,751
Number of Suppliers by Geographical Region				
Hong Kong	number	2,520	3,340	3,780
Mainland China		380	280	381
Regions/Countries outside China		200	530	590

Community Investment

Indicators	Unit	2020	2021	2022
Total monetary and in-kind contributions	HK\$'000	24,534	20,308	115,306
Total volunteer hours	hours	3,328	3,914	2,659

11. HKEX ESG REPORTING GUIDE AND GRI CONTENT INDEX

HKEX ESG Reporting Guide Content Index

Mandatory Disclosure Requirements	Reference Chapters and Remarks
Governance Structure	Sustainability at PCCW
Reporting Principles	About this Report
Reporting Boundary	About this Report

Aspects, General Disclosure, KPIs	Description	Reference Chapters/ Remarks
A. Environmental		
Aspect A1: Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Enhancing the Group's Environmental Resilience and Agility
KPI A1.1	The types of emissions and respective emissions data.	Performance Data Summary
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity.	Performance Data Summary
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity.	Performance Data Summary
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity.	Performance Data Summary
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	Enhancing the Group's Environmental Resilience and Agility
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Enhancing the Group's Environmental Resilience and Agility

Aspects, General Disclosure, KPIs	Description	Reference Chapters/ Remarks
Aspect A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Enhancing the Group's Environmental Resilience and Agility
KPI A2.1	Direct and/or indirect energy consumption by type in total (kWh in '000s) and intensity.	Performance Data Summary
KPI A2.2	Water consumption in total and intensity	Performance Data Summary
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	Enhancing the Group's Environmental Resilience and Agility
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Enhancing the Group's Environmental Resilience and Agility
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Performance Data Summary
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Enhancing the Group's Environmental Resilience and Agility
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Enhancing the Group's Environmental Resilience and Agility
Aspect A4: Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Enhancing the Group's Environmental Resilience and Agility
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Enhancing the Group's Environmental Resilience and Agility

Aspects, General Disclosure, KPIs	Description	Reference Chapters/ Remarks
B. Social		
Employment and Labour Practices		
Aspect B1: Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Becoming an Employer of Choice
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	Performance Data Summary
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Performance Data Summary
Aspect B2: Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Becoming an Employer of Choice
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Performance Data Summary
KPI B2.2	Lost days due to work injury.	Performance Data Summary
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Becoming an Employer of Choice
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Becoming an Employer of Choice
KPI B3.1	The percentage of employees trained by gender and employee category.	Performance Data Summary
KPI B3.2	The average training hours completed per employee by gender and employee category.	Performance Data Summary

Aspects, General Disclosure, KPIs	Description	Reference Chapters/ Remarks
Aspect B4: Labour Standards		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Becoming an Employer of Choice
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Becoming an Employer of Choice
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Becoming an Employer of Choice
Operating Practices		
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Netting the Value Chain
KPI B5.1	Number of suppliers by geographical region.	Netting the Value Chain
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Netting the Value Chain
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Netting the Value Chain
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Netting the Value Chain
Aspect B6: Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Enhancing Customer Experience, Products and Services

Aspects, General Disclosure, KPIs	Description	Reference Chapters/ Remarks
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Enhancing Customer Experience, Products and Services Since 2022, there has been no incident of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Enhancing Customer Experience, Products and Services
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Enhancing Customer Experience, Products and Services
KPI B6.4	Description of quality assurance process and recall procedures.	Not a material topic to PCCW since majority of business is about service provision.
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Enhancing Customer Experience, Products and Services
Aspect B7: Anti-corruption		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Sustainability at PCCW
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Sustainability at PCCW
KPI B7.2	Description of preventive measures and whistleblowing procedures, how they are implemented and monitored.	Sustainability at PCCW
KPI B7.3	Description of anti-corruption training provided to directors and staff.	Annual Report – Corporate Governance Report Sustainability at PCCW
Community		
Aspect B8: Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Caring for the Community
KPI B8.1	Focus areas of contribution.	Caring for the Community
KPI B8.2	Resources contributed to the focus area.	Caring for the Community

GRI Content Index

GRI Disclosure	Reference Chapters/ Remarks
GRI 1: Foundation 2021	
Statement of use	The Group has reported in accordance with the GRI Standards for the period from 1 January 2022 to 31 December 2022.
GRI 2: General Disclosures 2021	
2-1 Organisational details	About this Report
2-2 Entities included in the organisation's sustainability reporting	About this Report
2-3 Reporting period, frequency and contact point	About this Report
2-4 Restatements of information	Performance Data Summary
2-5 External assurance	Assurance Report
2-6 Activities, value chain and other business relationships	About this Report Netting the Value Chain Corporate Website – About us Corporate Website – Our Supply Chain Management
2-7 Employees	Becoming an Employer of Choice Performance Data Summary
2-8 Workers who are not employees	PCCW does not capture this data.
2-9 Governance structure and composition	Sustainability at PCCW
2-10 Nomination and selection of the highest governance body	Annual Report – Corporate Governance Report
2-11 Chair of the highest governance body	Annual Report – Corporate Governance Report
2-12 Role of the highest governance body in overseeing the management of impacts	Annual Report – Corporate Governance Report Sustainability at PCCW – Sustainability Governance Structure and Oversight Responsibilities
2-13 Delegation of responsibility for managing impacts	Annual Report – Corporate Governance Report Sustainability at PCCW – Sustainability Governance Structure and Oversight Responsibilities
2-14 Role of the highest governance body in sustainability reporting	Sustainability at PCCW – Sustainability Governance Structure and Oversight Responsibilities
2-15 Conflicts of interest	Annual Report – Corporate Governance Report
2-16 Communication of critical concerns	Annual Report – Corporate Governance Report Sustainability at PCCW – Sustainability Governance Structure and Oversight Responsibilities
2-17 Collective knowledge of the highest governance body	Annual Report – Corporate Governance Report
2-18 Evaluation of the performance of the highest governance body	Annual Report – Corporate Governance Report

GRI Disclosure	Reference Chapters/ Remarks
2-19 Remuneration policies	Annual Report – Corporate Governance Report – Remuneration Committee
2-20 Process to determine remuneration	Annual Report – Corporate Governance Report Annual Report – Notes to the Consolidated Financial Statements
2-21 Annual total compensation ratio	Annual Report – Financial Information
2-22 Statement on sustainable development strategy	Acting Group Managing Director's Message
2-23 Policy commitments	Sustainability at PCCW – Sustainability Policies
2-24 Embedding policy commitments	Sustainability at PCCW – Sustainability Policies
2-25 Processes to remediate negative impacts	Sustainability at PCCW – Business Ethics – Whistleblowing
2-26 Mechanisms for seeking advice and raising concerns	Sustainability at PCCW – Business Ethics – Whistleblowing
2-27 Compliance with laws and regulations	Since 2022, we have not been subject to any significant fines or non-monetary sanctions due to non-compliance with relevant laws or regulations.
2-28 Membership associations	External Charters and Membership
2-29 Approach to stakeholder engagement	Sustainability at PCCW – Stakeholder Engagement
2-30 Collective bargaining agreements	PCCW does not involve in any collective bargaining agreements.
GRI 3: Material Topics 2021	
3-1 Process to determine material topics	Sustainability at PCCW – Stakeholder Engagement
3-2 List of material topics	Sustainability at PCCW – Stakeholder Engagement
3-3 Management of material topics	Sustainability at PCCW – Stakeholder Engagement
GRI 201: Economic Performance 2016	
3-1 Process to determine material topics	Annual Report
201-1 Direct economic value generated and distributed	Annual Report
201-2 Financial implications and other risks and opportunities due to climate change	Sustainability at PCCW – Enterprise Risk Management – Sustainability Risks and Climate Change
201-3 Defined benefit plan obligations and other retirement plans	Becoming an Employer of Choice
201-4 Financial assistance received from government	We have not received significant financial assistance from any government.
GRI 202: Market Presence 2016	
3-1 Process to determine material topics	Sustainability at PCCW – Stakeholder Engagement
202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Performance Data Summary
202-2 Proportion of senior management hired from the local community	Performance Data Summary

GRI Disclosure	Reference Chapters/ Remarks
GRI 203: Indirect Economic Impacts 2016	
3-1 Process to determine material topics	Sustainability at PCCW – Stakeholder Engagement
203-1 Infrastructure investments and services supported	Creating Shared Value Caring for the Community
203-2 Significant indirect economic impacts	Creating Shared Value Caring for the Community
GRI 204: Procurement Practices 2016	
3-1 Process to determine material topics	Netting the Value Chain
204-1 Proportion of spending on local suppliers	Netting the Value Chain
GRI 205: Anti-corruption 2016	
3-1 Process to determine material topics	Sustainability at PCCW – Business Ethics
205-1 Operations assessed for risks related to corruption	Sustainability at PCCW – Business Ethics
205-2 Communication and training about anti-corruption policies and procedures	Sustainability at PCCW – Business Ethics
205-3 Confirmed incidents of corruption and actions taken	Sustainability at PCCW – Business Ethics
GRI 206: Anti-competitive Behaviour 2016	
3-1 Process to determine material topics	Annual Report – Report of the Directors
206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	During 2022, there has been no legal action initiated against PCCW under the Competition Ordinance or related regulations.
GRI 301: Materials 2016	
3-1 Process to determine material topics	Enhancing the Group's Environmental Resilience Agility
301-1 Materials used by weight or volume	Performance Data Summary
301-2 Recycled input materials used	Performance Data Summary
301-3 Reclaimed products and their packaging materials	Performance Data Summary
GRI 302: Energy 2016	
3-1 Process to determine material topics	Enhancing the Group's Environmental Resilience Agility
302-1 Energy consumption within the organisation	Performance Data Summary
302-2 Energy consumption outside of the organisation	Performance Data Summary
302-3 Energy intensity	Performance Data Summary
302-4 Reduction of energy consumption	Performance Data Summary
302-5 Reductions in energy requirements of products and services	Enhancing the Group's Environmental Resilience Agility

GRI Disclosure	Reference Chapters/ Remarks
GRI 305: Emissions 2016	
3-1 Process to determine material topics	Enhancing the Group's Environmental Resilience Agility
305-1 Direct (Scope 1) GHG emissions	Performance Data Summary
305-2 Energy indirect (Scope 2) GHG emissions	Performance Data Summary
305-3 Other indirect (Scope 3) GHG emissions	Performance Data Summary
305-4 GHG emissions intensity	Performance Data Summary
305-5 Reduction of GHG emissions	Enhancing the Group's Environmental Resilience Agility
305-6 Emissions of ozone-depleting substances (ODS)	Performance Data Summary
305-7 Nitrogen oxides (NOx), sulphur oxides (SOx), and other significant air emissions	Performance Data Summary
GRI 306: Waste 2020	
3-1 Process to determine material topics	Enhancing the Group's Environmental Resilience Agility
306-1 Waste generation and significant waste-related impacts	Enhancing the Group's Environmental Resilience Agility
306-2 Management of significant waste-related impacts	Enhancing the Group's Environmental Resilience Agility
306-3 Waste generated	Performance Data Summary
306-4 Waste diverted from disposal	Performance Data Summary
306-5 Waste directed to disposal	Performance Data Summary
GRI 308: Supplier Environmental Assessment 2016	
3-1 Process to determine material topics	Netting the Value Chain
308-1 New suppliers that were screened using environmental criteria	Netting the Value Chain
308-2 Negative environmental impacts in the supply chain and actions taken	Netting the Value Chain
GRI 401: Employment 2016	
3-1 Process to determine material topics	Becoming an Employer of Choice
401-1 New employee hires and employee turnover	Becoming an Employer of Choice
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Life insurance, disability and invalidity coverage, share options would be available subject to different employment status.

GRI Disclosure	Reference Chapters/ Remarks
401-3 Parental leave	Our human resources system captures but does not currently track the total number of employees who have taken parental leave and are still employed twelve months after their return to work from parental leave or the retention rates of these employees. We have various measures in place to provide job security as well as opportunities for further career development, including our employees returning from parental leave.
GRI 403: Occupational Health and Safety 2018	
3-1 Process to determine material topics	Becoming an Employer of Choice
403-1 Occupational health and safety management system	Becoming an Employer of Choice
403-2 Hazard identification, risk assessment, and incident investigation	Becoming an Employer of Choice
403-3 Occupational health services	Becoming an Employer of Choice
403-4 Worker participation, consultation, and communication on occupational health and safety	Becoming an Employer of Choice
403-5 Worker training on occupational health and safety	Becoming an Employer of Choice
403-6 Promotion of worker health	Becoming an Employer of Choice
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Becoming an Employer of Choice
403-8 Workers covered by an occupational health and safety management system	Performance Data Summary
403-9 Work-related injuries	Performance Data Summary
403-10 Work-related ill health	Performance Data Summary
GRI 404: Training and Education 2016	
3-1 Process to determine material topics	Becoming an Employer of Choice
404-1 Average hours of training per year per employee	Becoming an Employer of Choice
404-2 Programmes for upgrading employee skills and transition assistance programmes	Becoming an Employer of Choice
404-3 Percentage of employees receiving regular performance and career development reviews	Performance Data Summary
GRI 405: Diversity and Equal Opportunity 2016	
3-1 Process to determine material topics	Becoming an Employer of Choice
405-1 Diversity of governance bodies and employees	Annual Report – Corporate Governance Report
405-2 Ratio of basic salary and remuneration of women to men	The same policies for remuneration and benefits apply to all employees, irrespective of gender, religion, origin, age, disability or sexual orientation. Due to confidentiality consideration, the ratio of basic salary and remuneration of women to men is unavailable for disclosure.

GRI Disclosure	Reference Chapters/ Remarks
GRI 406: Non-discrimination 2016	
3-1 Process to determine material topics	Becoming an Employer of Choice
406-1 Incidents of discrimination and corrective actions taken	Becoming an Employer of Choice
GRI 409: Forced or Compulsory Labour 2016	
3-1 Process to determine material topics	Becoming an Employer of Choice
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	Becoming an Employer of Choice
GRI 413: Local Communities 2016	
3-1 Process to determine material topics	Caring for the Community
413-1 Operations with local community engagement, impact assessments, and development programmes	Caring for the Community
413-2 Operations with significant actual and potential negative impacts on local communities	Caring for the Community
GRI 414: Supplier Social Assessment 2016	
3-1 Process to determine material topics	Netting the Value Chain
414-1 New suppliers that were screened using social criteria	Netting the Value Chain
414-2 Negative social impacts in the supply chain and actions taken	Netting the Value Chain
GRI 415: Public Policy 2016	
3-1 Process to determine material topics	Sustainability at PCCW – Business Ethics
415-1 Political contributions	PCCW is politically and denominationally neutral and does not financially support any parties, opinion or decision makers.
GRI 416: Customer Health and Safety 2016	
3-1 Process to determine material topics	Enhancing Customer Experience, Products and Services
416-1 Assessment of the health and safety impacts of product and service categories	Enhancing Customer Experience, Products and Services
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Enhancing Customer Experience, Products and Services During 2022, there has been no incident of non-compliance with regulations and/or voluntary codes concerning the health and safety impacts of products and services.
GRI 418: Customer Privacy 2016	
3-1 Process to determine material topics	Enhancing Customer Experience, Products and Services
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Enhancing Customer Experience, Products and Services

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and traded in the form of American Depositary Receipts on the OTC Markets Group Inc. in the US (Ticker: PCCWY).

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