As a pioneer of green buildings, the Group proactively develops premium environmentally friendly commercial projects

Given its strong commitment to property quality, the Group has endeavoured to incorporate green elements in the development of its major commercial projects to obtain globally renowned green certificates over the past years, hence recognized as a pioneer of green buildings in Hong Kong. In recent years, the Group has continued to show its full support for creating a sustainable community and contributing to make Hong Kong a carbon-neutral city by setting long-term environmental targets, formulating policies on sustainable development and climate change, and continuing to be actively engaged in research on innovative green building technologies.

ICC
环球贸易广场
Location: atop the Airport Express Kowloon Station, West Kowloon
GFA:~2.5 million square feet
Completion year: 2011
位置：西九龙，为机场快线九龙站上盖项目
楼面面积：约23万平方米（250万平方呎）
落成时间：2011年

Sun Hung Kai Centre
新鸿基中心
Location: adjacent to MTR Exhibition Centre Station, Wan Chai
GFA: ~900,000 square feet
Completion year: 1980
位置：湾仔，邻近港铁会展站
楼面面积：约8.4万平方米（90万平方呎）
落成时间：1980年

One IFC, Two IFC and IFC Mall
国际金融中心一期、二期及商场
Location: atop MTR Hong Kong Station, Central Harbourfront
GFA: over 3 million square feet in total*
Completion years: 1998 (One IFC) and 2003 (Two IFC)
位置：中环海滨、为港铁香港站上盖项目
楼面面积：合共超过27.9万平方米（300万平方呎）*
落成时间：1998年（一期）及2003年（二期）

*Note: The Group owns ~1 million square feet of office space and ~320,000 square feet of retail area in attributable terms
注：集团应占写字楼楼面约9.3万平方米（100万平方呎）及零售楼面约3万平方米（32万平方呎）

The Group's major projects have clinched multiple international green certifications

As early as 2009, Tower One of Kowloon Commerce Centre (KCC) under the Group received LEED (Leadership in Energy and Environmental Design) gold pre-certification from the US Green Building Council. In 2012, it attained full LEED gold certification after completion, marking the first office development in Hong Kong to receive such an honour. In 2017, International Commerce Centre (ICC) was awarded Hong Kong's first-ever top Platinum certificate in BEAM Plus. The Group has continued to enhance the green management standards of its major projects. This year, a series of Hong Kong commercial projects completed in different years, including ICC, One IFC, Two IFC and IFC Mall, as well as the above 40-year-old Sun Hung Kai Centre, successfully achieved LEED Platinum certification under the v4.1 Operations and Maintenance: Existing Buildings rating system, demonstrating the Group's determination to continue project enhancement and strive for excellence.

Since its completion, the Group has continued to upgrade **ICC**'s green facilities and management level, achieving LEED Platinum certification under the v4.1 Operations and Maintenance: Existing Buildings rating system with the highest score this year. In 2020, the iconic grade-A office development also became the first commercial building in Hong Kong to receive the top 'Outstanding' rating in the BREEAM In-Use scheme, an international green building assessment system. In 2021, it received the WELL Health-Safety Rating for Facility Operations (WELL HSR) certificate from the International WELL Building Institute (IWBI), making it the first building in Hong Kong to earn this certificate.

The project's act of introducing intelligent management system, effectively monitors and controls the optimal operation and energy consumption of the various types of equipment, and has resulted in savings of over 17 million kWh of electricity since 2012 through a combination of the energy saving measures, such as

- introducing Internet of Things (IoT) technology and a smart lighting control system to improve energy efficiency;
- refurbishing the central air conditioners to extend the service life and enhance their performance;
- adopting a smart indoor air quality monitoring system.

Sun Hung Kai Centre, the Group's headquarters, despite being completed over 40 years ago, was awarded the LEED Platinum certificate, which is a rare achievement. Over a decade ago, Sun Hung Kai Centre underwent electrical and mechanical (E&M) renovations, incorporated sustainability in planning, design, procurement and management, including the re-inspection of the E&M facility system, and optimized the chiller systems to enhance efficiency, and reduce energy use and costs.

Sun Hung Kai Centre also introduced multiple measures, including a smart building management system, an energy monitoring system, upgraded ventilation and air-conditioning systems, and the installation of a variable air volume system, to ensure excellent operation and maintenance practices, thus continuing to contribute to environmental protection. Since 2004, a remarkable 60 million kWh of electricity and 42,000 tonnes of carbon dioxide have been saved, which is equivalent to the amount of carbon dioxide absorbed by about 1.8 million trees a year.

One IFC, Two IFC and IFC Mall One IFC, Two IFC and IFC Mall are located in the heart of Central's waterfront commercial area. Their project teams have striven to upgrade the buildings' green management to meet the high environmental standards demanded by internationalcorporations, achieving LEED Platinum certification under the v4.1 Operations and Maintenance: Existing Buildings rating system. Two IFC became the first commercial building in Hong Kong to receive this certification.

The Group's major commercial projects on the mainland have also achieved the high standard set for international green buildings. In 2020, Shanghai IFC and Shanghai ICC both achieved the Platinum rating in the LEED V4.0 for Building Operations and Maintenance: Existing Buildings for their outstanding performance in energy-optimization, resources and water management, as well as expanding the use of green transportation. The former was the commercial project to receive the world's highest score that year.

Integration of sustainable building elements

The Group's long-term environmental targets include achieving LEED Gold or Platinum certifications for its core commercial projects under development, including the High Speed Rail West Kowloon Terminus Development in Hong Kong and the 370-metre skyscraper of the ITC remaining phase in Shanghai. In order to comply with the most stringent international green standards, the Group strives to incorporate sustainable elements into the entire life cycle of its property developments, from design and materials procurement to construction and property management. In KCC, for example, the first office development to earn the LEED Gold certification in Hong Kong, multiple green design elements were adopted in its original construction, including the use of large glass curtains to effectively utilize natural light. In addition, various green landscaped areas and sky gardens were included in the development, together with the installation of indoor carbon dioxide sensors to enhance indoor air quality and provide a healthy work and leisure environment for tenants.

Continuous efforts in green management

In order to incorporate its green principles into the daily operations of its projects, the Group set a number of environmental targets, and aims to achieve three 10 -year key commitments by the end of fiscal year 2030, including a 13% reduction in electricity consumption, a 25% reduction in greenhouse gas emissions and a 5% reduction in water use in about 60 of the Group's investment properties; additionally, an annual construction waste diversion rate of 70% or more for projects under construction in Hong Kong. The Group's property management and construction companies have all received ISO 9001 quality management system certification. Kai Shing and Hong Yip, two of the Group's property management companies, have proactively introduced smart management to enhance the energy efficiency of their projects under management. Kai Shing became the first company in Hong Kong to obtain internationally recognized ISO 41001 facility management system certification, and Hong Yip was the first property management company in Hong Kong's property and facilities management sector to obtain ISO 27001 certification for its information security management system..

Shanghai IFC, Shanghai
上海市上海国金中心

Shanghai ICC, Shanghai
上海市上海环贸广场

Signing ceremony for the collaboration between the Group and PolyU
集团与理大合作签署仪式

Collaboration with universities and high-tech companies on innovative green building technologies

Innovative technology is of utmost importance to the Group's sustainability initiatives in all aspects of property-related development. The Group partners with various local universities and scientific research institutions to drive the development of innovative green buildings. For example, in 2005, the Group and The Hong Kong Polytechnic University (PolyU) joined hands to research and develop innovative green building technology, utilizing the advantages from the collaborative development of enterprises, universities and research institutions, and successfully applied this technology in the construction of ICC. In recent months, the Group collaborated with PolyU again, focusing on the research work in three areas: Green Application, Green Materials and Green Processes. The research work includes the joint development of a smart, efficient, flexible energy management system, using the development atop the High Speed Rail West Kowloon Terminus as a pilot project to transform, realize and commercialize building technology research outcomes.

For the development atop the High Speed Rail West Kowloon Terminus, the joint team will develop a solution for the full life cycle of smart energy-saving system by making use of technological advances in artificial intelligence, IoT and digital twin, to control energy distribution in real time, maximizing the energy-saving effects. The team will also optimize carbon activation to offset part of the carbon emissions during concrete production to produce more environmentally friendly, green building materials.

The Group will also work with PolyU to build the first ever blockchain platform to record the Building Information Model (BIM) of every project, as an easy reference for stakeholders, thus maximizing traceability, which is in line with the government's comprehensive promotion of the adoption of electronic approvals in the construction industry, contributing to smart city planning in the long run.

The Group's two property management companies have also proactively partnered with universities and technology companies to develop innovative technology applications in property management. For example, Hong Yip is currently co-developing with Hong Kong Metropolitan University an IoT solution for preventive maintenance and environmental monitoring in property management for water pumping systems. The IoT-based solution will be developed by using the dynamic operational data. The solution will strengthen the property management team's capabilities of data collection and analysis, in order to help identify potential problems and risks at an early stage, ultimately enhancing operational efficiency and lifespan of equipment.

Another example is Kai Shing's collaboration with two innovative technology start-ups to optimize the building performance, efficiency and sustainability of ICC, through a joint digital twin project using BIM. It helps form a connection with the existing analysis tools and monitoring system, making use of visualization, data analysis and project performance in order to simulate, predict and optimize project efficiency. Kai Shing also leveraging this experience proactively conducts staff training to prepare for the future applications of the solution in other projects.

作为绿色建筑先驱　集团致力打造优质环保商业项目

凭借对物业品质的坚持，集团多年前已开始为旗下主要商业项目注入环保元素，获取国际知名的绿色认证，成为香港绿色建筑的先驱。集团近年通过订立长期环保目标、制定可持续发展及气候变化政策，并且积极参与研发绿色建筑创新科技等方式，以进一步支持创建可持续发展社区，为香港迈向碳中和城市而作出努力。

ICC in Hong Kong ensures that all facilities are in their optimum state regarding operations and energy efficiency by introducing IoT technology
位于香港的环球贸易广场通过物联网技术，以确保各项设施处于最佳的运作和耗能状态

集团主要项目屡获国际绿色认证

早于2009年，集团旗下九龙贸易中心第一座写字楼，已获美国绿色建筑委员会的领先能源与环境设计(LEED)金级预认证，落成后于2012年获颁正式金级证书，是全港首幢获此殊荣的商厦。环球贸易广场则于2017年，成为全港首获绿建环评(BEAM Plus)最高铂金级别认证的商厦。集团持续提升主要项目的绿色管理水平，今年多个建于不同年代的香港商业项目，包括环球贸易广场、国际金融中心一期、二期和国际金融中心商场，以及落成逾40年的新鸿基中心，同获LEED“v4.1 营运与保养：现有建筑”铂金级认证，显示集团不断优化项目、精益求精的决心。

环球贸易广场自落成后，集团持续提升其绿色设施和管理，故今年以最高分数获得LEED“v4.1营运与保养：现有建筑”铂金级认证。此甲级写字楼地标项目亦于2020年成为全港首幢获由国际绿色建筑评估系统BREEAM颁发的最高杰出(Outstanding)评级的商厦，并于2021年成为香港第一座荣获国际WELL健康建筑研究院(IWBI)认证的物业设施运营管理“WELL健康 —安全评价准则”证书的建筑物。

该项目通过引入智能管理系统，有效监察和控制各项设备处于最佳的运作和耗能状态，结合多项节能措施，令项目自2012年起，节省电量逾1,700万度。有关措施包括：

- 引入物联网(IoT)科技及智能照明控制系统，以提升能源效益
- 翻新中央空调，以延长其寿命和提升表现
- 采用智能室内空气监测系统

集团总部**新鸿基中心**，落成至今虽已逾40年，仍获得LEED颁发铂金级认证，实属难得。皆因早于十多年前，新鸿基中心已进行机电设备革新工程，并将可持续发展纳入机电装置的规划、设计、材料采购及管理上，包括将机电设施系统重新较验及冷冻机系统最佳化，增强效能以进一步节省电能和减低开支。

此外，新鸿基中心通过引入智能大厦管理系统、能源监察系统、提升通风及冷气系统，以及安装可调风量冷气系统等，实现优良操作和维修作业守则，持续为环保作出贡献。自2004年至今，累计节省超过6,000万度电，减少42,000吨二氧化碳排放，相当于 180 万棵树一年吸收的二氧化碳量，成效显著。

国际金融中心一期、二期及商场位处中环临海商业核心地段，项目团队致力提升绿色管理，以满足国际企业对环保水平的高要求，因此获得LEED“v4.1 营运与保养：现有建筑”铂金级认证，而国际金融中心二期更成为全港首幢获得此认证的商厦。

集团在内地的主要商业项目，同样达到国际绿色建筑的高标准。其中上海国金中心及上海环贸广场，凭借在“优化能源使用”、“资源和用水管理”以及“强化绿色交通使用”等多个范畴的优异表现，于2020年双双获得LEED“v4.0 营运与保养：现有建筑”铂金级认证。前者更成为当年全球分数最高的商业项目。

引入可持续建筑元素

集团订立的长期环保目标包括为在建中的核心商业项目获取LEED金级或铂金级认证，其中包括香港高铁西九龙总站上盖发展项目及上海ITC余下期数楼高370米的摩天大楼。为符合最严格的国际环保标准，集团致力在整个物业发展生命周期中，从设计、物料采购、建造至物业管理加入可持续发展元素。以成为全港首座获得LEED金级认证的商厦九龙贸易中心为例，项目自筹建时已采用多项环保设计元素，包括采用大玻璃幕墙设计，有效运用天然光源；另外建造了多个绿化园林地带及空中花园，并于室内安装二氧化碳含量感应器，提高室内空气质量，让租客有一个健康的工作环境及休憩空间。

ITC, Shanghai
上海市 ITC

Rendering
效果图

贯彻绿色管理

为了将环保理念融入项目日常营运中，集团制定多项环保目标，其中包括2030年财政年度或之前落实三大十年承诺：为旗下约60幢商业物业降低耗电强度13%；降底温室气体排放强度25%及用水强度降低5%；另外，每年于香港在建项目的建筑废物分流率达到70%或以上。集团旗下物业管理和建筑公司均已获得ISO9001品质管理系统认证。此外，属下两间物业管理公司启胜及康业，亦积极引入智能化管理，大大提升项目的节能效益。启胜更成为香港首家获得国际认可的ISO41001设施管理体系认证的公司；而康业是香港物业及设施管理界别中首家获得ISO 27001资讯保安管理体系认证的物业管理公司。

与大学及创科企业合研绿色建筑创新技术

创新科技对集团推行各项物业相关的可持续发展举措至关重要。集团通过与不同的本地大学及科研机构合作，以推动创新绿色建筑的发展。例如，集团早于2005年已经与香港理工大学合作，共同研发创新绿色建筑技术，发挥“产学研”优势，并在兴建环球贸易广场时成功应用。近月，集团与理工大学再度合作，针对绿色应用、绿色建筑物料及绿色建造流程等三方面的研发工作，其中包括共同打造智慧建筑能源管理系统，并以高铁西九龙总站上盖项目为试点，务求将科技成果落地转化和产业化。

合作团队会为高铁西九龙总站上盖项目，研发“全生命周期智慧节能技术及系统方案”— 利用人工智能、物联网、数码分身（Digital Twin）等技术，实时控制能源分配，将节能成效最大化。此外，团队又将研究优化“碳激发技术（Carbon Activation）”，目标是在生产混凝土时，抵销部分碳排放，以制造出更环保的绿色建筑物料。

集团亦会与理大搭建首个建筑业区块链平台，记录每个项目的建筑资讯模型（BIM），方便持份者参考，充分发挥其可溯性的优点，以配合政府全面推动建筑产业审批电子化的趋势，长远有助智慧城市规划。

至于集团两间物业管理公司亦积极与大学和创科企业合作，研发创新科技应用于物业管理中。例如康业现正与香港都会大学共同开发针对水泵系统的“物业管理预防性维护及环境监控的物联网解决方案”— 通过水泵系统中的运行数据、状况等动态资料，开发以物联网为本的解决方案，增强收集和分析数据的能力，以协助物管团队及早发现潜在问题及风险，从而提升设施效益及使用寿命。

另一个案例则是启胜与两间初创公司合作，以优化环球贸易广场的建筑性能、效率和可持续性，发展数码分身项目——通过建筑资讯模型，连接项目已有的分析工具和控制系统，并利用可视化、数据分析和项目的性能表现，以模拟、预测及优化项目绩效。此外，凭借此次经验，启胜也积极进行相关的员工培训，为日后应用至其他项目作好准备。

Rendering
效果图

The landmark project atop High Speed Rail West Kowloon Terminus achieves LEED pre-certification

西九龙高铁站地标项目获LEED预认证

The commercial project under construction atop the High Speed Rail West Kowloon Terminus is expected to be completed by 2025. Recently, UBS, a leading global wealth manager, became the project's first anchor tenant. The bank will relocate and consolidate its Hong Kong operations to the top nine floors of the tallest tower of this superbly located mega project starting in early 2026, taking up a total floor area of approximately 250,000 square feet.

Apart from its location on the only high speed rail terminus in Hong Kong, the commercial project above the High Speed Rail West Kowloon Terminus is strategically adjoined to the Airport Express Line and is connected to three other MTR lines, giving it unparalleled connectivity with major mainland cities and other parts of the world. The Group will strive to make the project one of the most sustainable and environmentally friendly buildings in the world, and is set to obtain six major green and WELL building certifications. The project has already received pre-certification in LEED – Core and Shell v4: Platinum. With its premium quality and excellent location, the Group believes that the landmark project will attract more quality tenants.

Amy Lo, Co-Head of Wealth Management Asia Pacific, UBS Global Wealth Management, Head and Chief Executive, UBS Hong Kong, said: "We are excited to be moving to the workplace of the future with state-of-the-art infrastructure that brings together and empowers all of our UBS colleagues in Hong Kong under one roof. The office will be built for our purposes, and we believe it will improve the productivity, collaboration and well-being of our colleagues. With its superb location, it will connect us with the rest of the Greater Bay Area, major cities on the Mainland and to the world with convenient access."

现正兴建中的西九龙高铁站商业项目，预计2025年内落成。此前该项目成功引入国际知名财富管理机构瑞银成为首个主要租户，租用项目最高一座大楼的最高九层，总楼面面积约2.3万平方米（25万平方呎）。瑞银将于2026年初开始进驻，将其在香港的营运单位迁入该项目。

西九龙高铁站商业项目除了坐落于本港唯一的高铁站上盖外，更邻近机场快线和三条港铁路线，贯通内地主要城市以至世界各地。集团竭力将其打造成为世界级的可持续发展及环境友好建筑物，预计可获得六项重要的绿色及WELL建筑标准认证，并已获得LEED“核心与外壳（Core and Shell）第4版：铂金级”的预认证。凭借优越的品质和地理位置，集团相信此地标项目将能吸引更多优质企业进驻。

瑞银财富管理亚太区联席主管兼瑞银香港区主管及行政总裁卢彩云指出：“我们很高兴能够与所有瑞银香港的同事一起进驻到这座引领未来的商业建筑。全新的办公室设计将会按我们所需而建，旨在提升同事的工作效率、团队合作及福利。新办公室优越的地理位置，将让我们更有效地与大湾区及内地主要城市、以至世界各地接轨。”