

A low-angle, upward-looking shot of a large, circular glass atrium. The structure is composed of multiple concentric rings of glass panels, creating a circular frame around a central opening. A vibrant rainbow is visible in the sky through the center of the atrium. The edges of the atrium are framed by lush green trees. In the top center, there is a blue rectangular box containing the white text 'JEC'.

JEC

Sustainability Report 2023

SUSTAINING OUR MOMENTUM



Sustainability Report 2023 Sustaining our Momentum

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CHIEF EXECUTIVE'S MESSAGE

On behalf of JEC, I am pleased to welcome you to our third annual Sustainability Report.

In the face of accelerating global challenges, JEC remains committed to providing innovative, high-quality engineering solutions to help drive and enable sustainable growth, in Hong Kong and across the region.

Effective from 1st January 2024, we have implemented an organisational restructure, with the creation of a new Digital & Sustainability division bringing together our innovative tech-driven solutions to support clients in reducing their carbon footprints and environmental impact. Meanwhile, our new Sales & Key Account Management team enables us to more regularly and systematically engage our major customers to identify sustainability win-wins.

This seamless integration of sustainability solutions into our commercial offering means that as JEC secures more business and grows, so too does our positive impact.

In 2023 and early-2024, three of our most iconic projects became operational: Hong Kong's Pilot Biochar Production Plant, Tseung Kwan O Desalination Plant, and O-PARK2. Together, these projects demonstrate how JEC's innovative solutions are supporting the territory's transition into a low-carbon, resource-efficient and water-sufficient future.

Looking forward, we will actively seek similar opportunities to apply our green technologies in other markets.

To showcase our commitment to building a sustainable future for our customers, our employees and the planet, we have worked with an external specialist to complete our decarbonisation strategy and roadmap for scopes 1, 2 and 3. We will submit our decarbonisation targets this year for validation by the Science Based Targets initiative (SBTi).

In 2023, we continued our dynamic expansion with a strategic investment in Krueger Engineering Group, which brings valuable building services expertise to JEC. Meanwhile, we will continue to exert influence on our industry through our steadfast commitment to innovation and sustainability, empowering us to provide enhanced solutions for our customers and stakeholders.

As you read through our updates this year, I hope that you will see how sustainability is becoming ever more integrated into our commercial strategy and operations as a key business driver.

Yours sincerely,

Noky Wong
Chief Executive
Jardine Engineering Corporation (JEC)

OUR BUSINESS IN 2023

Sustainability Performance Highlights

	External	Internal
 Powering Sustainable Growth	Decarbonisation <ul style="list-style-type: none"> » Implementation of JEDI smart energy management system at International Commerce Centre, Hong Kong » Began building the world's largest Smart Automated Laundry System for Hong Kong's Hospital Authority 	<ul style="list-style-type: none"> » Development of science-based decarbonisation targets and roadmaps for scopes 1-3 » Head Office renovation completed, incorporating energy efficiency
	Circular Economy <ul style="list-style-type: none"> » Construction of Hong Kong's O-PARK2 waste-to-energy plant completed » Hong Kong's Pilot Biochar Production Plant operational from April 2023 	<ul style="list-style-type: none"> » Continuation of group-wide digitalisation and paperless office drive
	Water Sufficiency <ul style="list-style-type: none"> » Tseung Kwan O Desalination Plant operational from December 2023 	
	External	Internal
 Empowering our People and Communities	Safety, Health and Wellbeing <ul style="list-style-type: none"> » Environment, Health and Safety (EHS) Week in July 2023 for JEC employees and subcontractors 	<ul style="list-style-type: none"> » Group Health and Safety Policy updated » Special day of leave to celebrate JEC's 100th birthday
	Workforce and Company Culture <ul style="list-style-type: none"> » Management Trainee programme welcomed 17 new joiners » 25 young people joined JEC's Apprenticeship Training Programme » 11 scholarships provided to graduating JEC apprentices 	<ul style="list-style-type: none"> » Jardine Learn Fest joined by more than 500 JEC colleagues » 28 colleagues participated in Urban Farming Initiative
	External	Internal
 Embedding Good Governance	<ul style="list-style-type: none"> » Strategic investment in Krueger Engineering Group 	<ul style="list-style-type: none"> » Organisational restructure including new Digital & Sustainability division



Awards and Recognition



Construction Industry Council (CIC)

Sustainable Construction Awards 2023

Gold Award for O-PARK2

Sustainable Construction Awards 2023

Gold Award for Tseung Kwan O Desalination Plant

Hong Kong Green Building Council (HKGBC) & Professional Green Building Council (PGBC)

Green Building Awards 2023

Merit Award in New Buildings Category (Projects Under Construction and/or Design – Institutional) for O-PARK2

Hong Kong SAR Environmental Protection Department (EPD) and Environmental Campaign Committee (ECC)

Hong Kong Green Organisation Certification

Energywise Certificate: Excellent Level for Tseung Kwan O Desalination Plant

Hong Kong Environmental Campaign Committee

Hong Kong Awards for Environmental Excellence (HKAEE)

Merit Certificate for Tseung Kwan O Desalination Plant

Institution of Civil Engineers (ICE)

ICE Awards 2023

Brunel Medal (Low-carbon Solutions in the Built Environment) for O-PARK2

ICE Awards 2023

Highly Commended in Edmund Hambly Medal (Creative Design for Sustainable Development) for Tseung Kwan O Desalination Plant

Chartered Institution of Water and Environmental Management (CIWEM)

CIWEM HK 2023 Innovation Awards

First Runner-up for Tseung Kwan O Desalination Plant

Occupational Safety & Health Council (OSHC)

The 21st Hong Kong Occupational Safety & Health Award

Rookie Safety Performance Award in Construction Industry for Tseung Kwan O Desalination Plant

NEC

NEC Contractor of the Year 2023

Runner-up for Jardine Engineering Corporation

EEC Academy

Nova BUILD EXPO 2023 Nova Build Awards

Outstanding Contributions in Innovations for Jardine Engineering Corporation



Memberships

Hong Kong

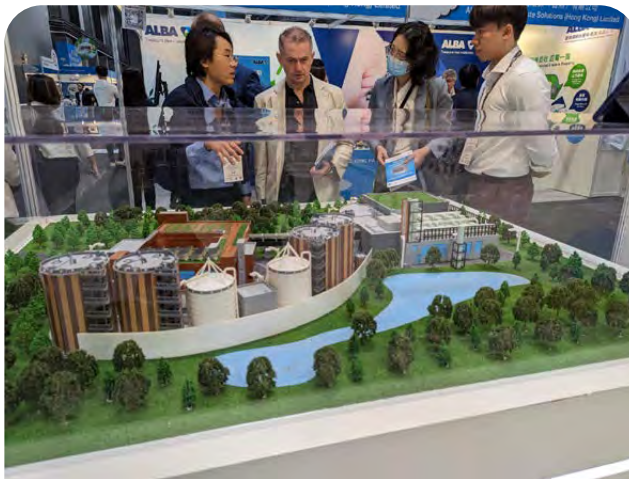
- » Association of Registered Fire Service Installation Contractors of Hong Kong Limited
- » Business Environment Council
- » Hong Kong Federation of Electrical and Mechanical Contractors
- » Hong Kong General Chamber of Commerce
- » Hong Kong Green Building Council
- » Hong Kong Air Conditioning and Refrigeration Association

South East Asia

- » Circular Economy in Construction Industry (*JEC Thailand*)
- » CroPLife Philippines (*Jardine Distribution, Inc.*)
- » Singapore International Facility Management Association (*JEC Singapore*)

Influencing our Industry

JEC continued to engage industry stakeholders through a range of conferences and events in 2023.



Hong Kong Trade Development Council and Messe Frankfurt, Co-organised by Hong Kong SAR Environment and Ecology Bureau

Eco Expo Asia 2023

JEC hosted an exhibition booth and five guided tour sessions showcasing O-PARK2 and the Pilot Biochar Production Plant (PBPP), attracting local, mainland and global visitors. Samples of biochar produced by the PBPP were distributed to the visitors for them to experience the end-product.



Hong Kong SAR Environmental Protection Department (EPD) and FoodSmart Partnership Programme FoodSmart Conference 2023

Alex Law, JEC's Managing Director for Electrical & Mechanical Contracting, highlighted the benefits of circular solutions for Hong Kong by showcasing the O-PARK2 food waste-to-energy facility, as well as the Pilot Biochar Production Plant.



Council on Tall Buildings and Urban Habitats

Asia Conference 2023

JEC showcased the JEDI platform's energy optimisation and predictive maintenance, EV and automated car park solutions, demonstrating the potential applications of AI in supporting sustainable, smart cities. Albany Tam, JEC's Director of Smart Solutions & Technologies, chaired the 'Low-carbon Cities' session.



Hong Kong Institution of Engineers (HKIE)

Hong Kong Engineers Week 2023

JEC supported the Hong Kong Engineers Week as a sponsor. During the week-long series of events, competitions and lectures, JEC helped raise public awareness of Hong Kong's waste challenges and our innovative engineering solutions through fun, interactive games.



Institute of Healthcare Engineering and Estate Management (IHEEM)

Hong Kong Symposium 2023

MGI, a vital part of JEC's business, actively participated in the Symposium, themed 'Hospital Engineering Design in the New Era of Environmental and Technological Development'. The Symposium brought together over 170 esteemed professionals in the healthcare engineering field.



JEC Customer Cocktail Reception

Honouring 100 Years of Sustainable Solutions

The JEC Customer Cocktail Reception marked the significant milestone of JEC's 100th anniversary. The Reception was attended by around 200 distinguished guests and 70 staff in October 2023. Alongside the main event, a tree-planting activity was held to help offset the event's carbon footprint.

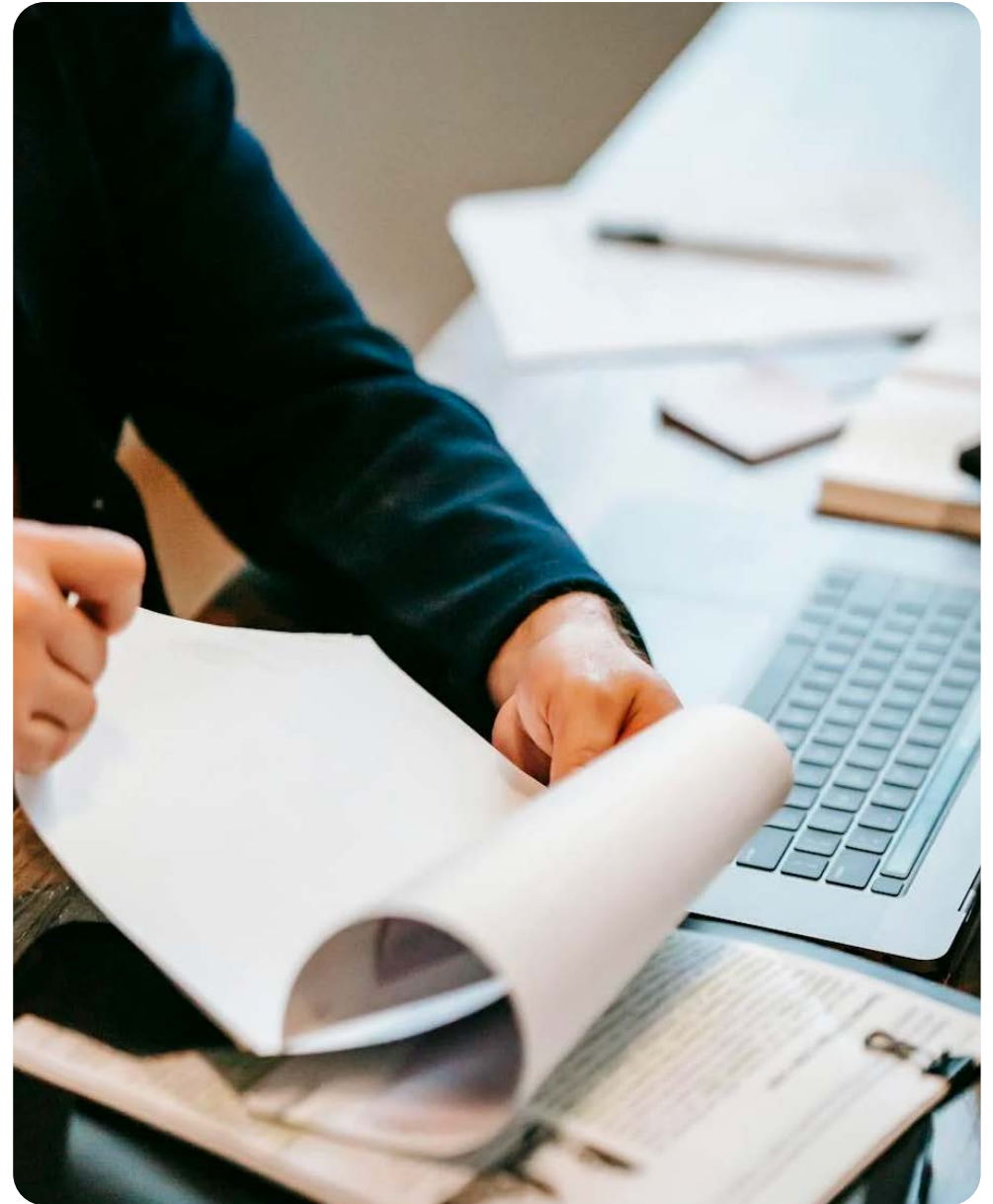
HOW WE MANAGE SUSTAINABILITY

Governance and Approach

JEC's ESG Core Team is led by our Executive Director, Digital & Sustainability. Comprising executives and senior managers, the Taskforce oversees our sustainability initiatives and disclosures, reporting upwards to JEC's Executive Committee.

In accordance with the principles set out by the Task Force on Climate-Related Financial Disclosures (TCFD), we completed our first Physical Risk Assessment in 2021 and Transition Risk Assessment in 2022. In 2023, our focus has been on preparing decarbonisation targets and roadmaps for submission to the Science Based Targets initiative (SBTi) in 2024.

As part of the preparation of our inaugural Sustainability Report 2021, published two years ago, we undertook a robust materiality assessment identifying priority areas and issues for JEC (please see below). In the future, we will conduct a detailed materiality update.



Focus and Priority Areas

Through our last materiality assessment, we identified our sustainability priorities and material issues as:

Powering Sustainable Growth



Decarbonisation



Circular Economy



Water Sufficiency



Empowering our People and Communities



Safety, Health and Wellbeing



Workforce and Company Culture



Community Engagement



Embedding Good Governance



Acquisitions and Business Integration



Data Security



Risk Management



Business Ethics



Responsible Sourcing and Partnerships



Looking ahead, our key commitments include



Actively engage key stakeholders in Hong Kong and our other key markets to explore the potential application of our innovative solutions



Submit near-term decarbonisation targets for scopes 1, 2 and 3 to the Science Based Targets initiative in 2024



Achieve 90% overall waste diversion by 2030



Raise the female-to-male ratio of JEC employees at managerial grade or above to 29% or more by 2026



Reporting and Assessment

Our sustainability priorities provide the structure for the main body of this Sustainability Report, which is prepared with reference to the Stock Exchange of Hong Kong (HKEX) ESG Reporting Guide and Global Reporting Initiative (GRI) Universal Standards.

The Report describes how Jardine Engineering Corporation manages its material issues and impacts, supported with performance data, and how it contributes to sustainable development in its key markets. JEC is a member of the Jardine Matheson Group (Jardines), reference is also made to Jardines initiatives, where relevant.

In a slight change to the structure of this year's Sustainability Report, the section on Powering Sustainable Growth adopts a more thematically-focused structure, which demonstrates how we are addressing key impact areas such as decarbonisation and the circular economy in an integrated way, spanning our whole value chain.

JEC's sustainability disclosures are subject to external assessment by EcoVadis. Feedback on our Sustainability Report 2022 helped shaped the content of this year's Report.

Consolidated performance metrics and the GRI content index can be found in the appendices.

For further information about any aspect of JEC's sustainability management and performance, please contact sustainability@jec.com.



POWERING SUSTAINABLE GROWTH





JEC's contribution to sustainable growth spans multiple areas – from enabling much needed public services and infrastructure, supporting our clients to operate efficiently, to reducing the carbon and waste footprint of our internal operations. We harness our engineering capabilities to make particular contributions in the areas of decarbonisation, circular economy and water sufficiency.



DECARBONISATION

As climate change accelerates, organisations, industries and economies must decarbonise as quickly as possible. JEC provides innovative technology-driven solutions to help clients across a range of sectors decarbonise, and we are developing targets and roadmaps to decarbonise our business internally.

Energy Optimisation Solutions

Sustainability and Commercial Integration

Our organisational restructure at the start of 2024 enables us to more seamlessly integrate sustainability solutions into our commercial offerings. The creation of a new Digital & Sustainability division brings together our prolific Jardine Engineering Digital Insights (JEDI) platform and our building management services to support clients on their energy reduction and decarbonisation journeys. This means that as JEC wins more business and grows, so too does our positive impact.



Advanced Energy Optimisation

JEC offers a suite of digital solutions to reduce energy consumption, improve equipment maintenance and reliability, enhance operational efficiency, and enable more effective facility lifecycle planning.

Our flagship JEDI platform utilises advanced data management and analytics, including AI and machine learning, to help clients reduce their energy bills and carbon footprints. Core product features include energy optimisation, fault detection and diagnosis, and an energy dashboard. In 2023, JEDI helped our customers collectively save more than 11.6 million kWh of energy, preventing over 7.5 million kg of carbon emissions.

JEDI's smart energy management system currently serves a number of major building operators and infrastructure clients. Since May 2023, we have partnered with Kai Shing to implement JEDI at the International Commerce Centre, Hong Kong's most iconic building. JEDI is also deployed at Exchange Square, which was awarded the 2023 Hong Kong Institution of Engineers (HKIE) Excellent Building Award.



In Focus: JEDI Energy Optimisation



**Total
Energy Savings**
— in 2023 —
11.6
MILLION kWh



**Total carbon
emissions averted**
— in 2023 —
7.5
MILLION KG



Enhanced Transmission

Quantum Optimisation Technologies (QOT) help improve electricity transmission efficiency, reducing power consumption of any electrical circuit by an average 10% of kW consumed. QOT has been implemented in JEC's offices at Manulife Financial Centre in Hong Kong, helping to save an average 50kWh per day or 17.5kg of CO₂. To date, this solution has also been implemented at seven additional client sites across Hong Kong.

Smart Maintenance

Our Maintenance & Renovation business further integrated Internet of Things (IoT) technologies in 2023, providing a smart solution to reduce energy consumption by chillers, which typically have a large carbon footprint. This follows the pilot of our Smart Washroom Solution in 2022, which utilises IoT to monitor the washroom's condition in real time whilst optimising energy and water use.

Low-Carbon Infrastructure

Greener Transport

To enable sustainable mobility in congested urban areas, JEC is supporting Bangkok MRT on the development of two new stations along its Orange Line, which is expected to open in 2026. JEC is helping to supply, install, test and commission mechanical and electrical equipment at the new stations.

We strive to promote the use of electric vehicles, which have much lower emissions than diesel and gas vehicles. Our EV Charging Solution for car park owners utilises a dynamic Load Management System, co-developed with The Hong Kong Polytechnic University, to expand charging capacity without the need to increase power supply to the facility. It is currently used on a number of client sites across Hong Kong.

Healthcare and Public Services

JEC continues to provide energy management, building and facilities management and clinical support systems to institutions in the healthcare and education sectors. After acquiring MGI Group Holdings Limited in 2021, its full integration into the business in 2022 allowed us to further strengthen our healthcare offering.

For example, in 2023 we designed and delivered several operating theatres for both day procedure centres and hospitals, including an energy-efficient ventilation system. We are currently building the world's largest Smart Automated Laundry System for Hong Kong's Hospital Authority: a fully automated hardware and software system that will deliver significant energy savings, reduced damage to linens, and more efficient water use. The system is scheduled to become operational in the first quarter of 2025.



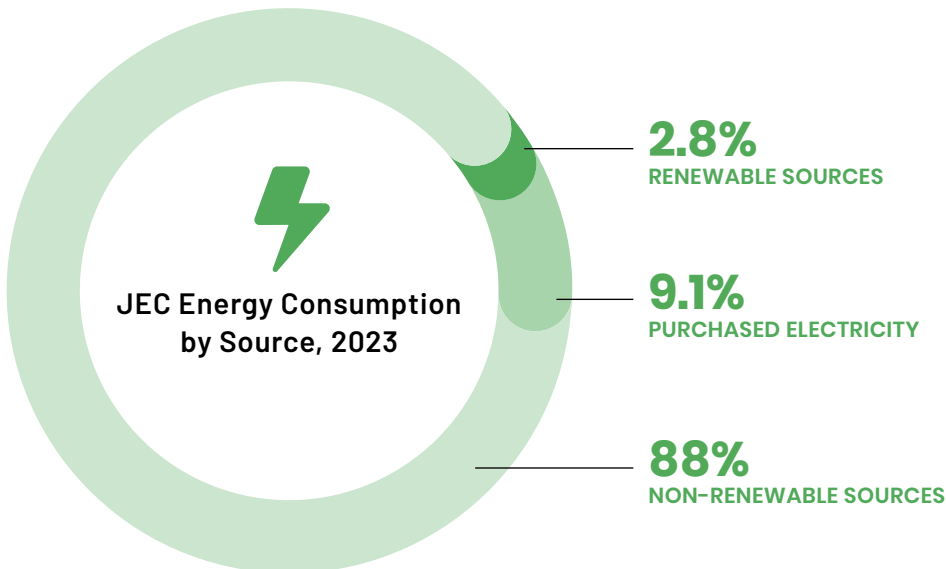
Decarbonising our Business

Decarbonisation Pathway

JEC is investing significant effort to submit decarbonisation targets, covering scopes 1, 2 and 3, for validation by the Science Based Targets initiative (SBTi) in 2024. We have engaged a specialist external consultant to support data collection and assessment, and to help us develop a series of business unit decarbonisation roadmaps for the next ten years.

Carbon Assessments

JEC completed its first Physical Risk Assessment in 2021 and its first Transition Risk Assessment in 2022, in accordance with Task Force on Climate-Related Financial Disclosures (TCFD) guidelines. Amongst our subsidiaries, Jardine Distribution, Inc. conducted a carbon assessment in 2017 and has reduced its annual CO₂ emissions significantly since then. JEC Thailand was recognised for its progress on carbon reduction under the Ministry of Natural Resources and Environment's Low Emission Support Scheme.



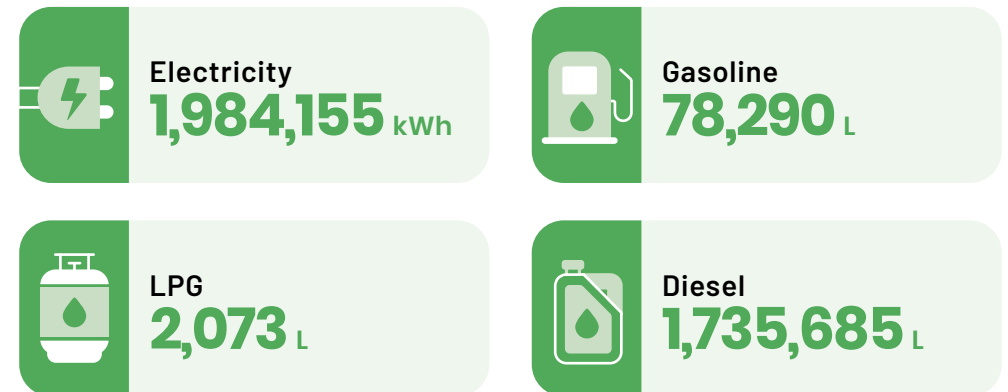
Carbon Reduction Initiatives

JEC has introduced an internal policy to transition its entire fleet of company cars to EVs. Our Head Office renovation was completed in 2023, incorporating major design elements for energy efficiency. Quantum Optimisation Technology was piloted at one of our own office buildings before being rolled out to customers, resulting in energy savings equivalent to 17.5kg of CO₂ per day on a single floor at our office in the Manulife Financial Centre in Hong Kong.

Energy Consumption

JEC consumed 1,984,155 kWh of electricity from non-renewable sources in 2023, and a total of 1,816,048 litres of diesel, gasoline and Liquefied Petroleum Gas (LPG). Our scope 1 (direct) GHG emissions totalled 4,831 tonnes of CO₂e while our scope 2 (indirect) emissions were equivalent to 934 tonnes of CO₂e.

Our diesel consumption increased from 1.4 million litres in 2022 to approximately 1.7 million litres in 2023. Energy from renewable sources was equal to 2.8% of our total energy consumption in 2023, slightly up from the previous year.



CIRCULAR ECONOMY



Sustainable production and consumption requires making better use of resources, cutting waste, and turning waste into productive resources. JEC constructs and operates a number of iconic projects to enable the transition to a circular economy in Hong Kong, whilst increasing efforts to use resources efficiently in our operations.

Circular Economy Infrastructure

Waste-to-Energy

Hong Kong produces 3,000 tonnes of food waste per day that is disposed to landfill, accelerating climate change as the food decomposes into methane. The city's Environmental Protection Department commissioned JEC to design, build and operate O-PARK2, which makes use of anaerobic digestion bioprocess technology to convert food waste into energy.

Construction of O-PARK2 was completed in 2023, ready for commissioning from 2024. The facility gained recognition from a number of prestigious organisations including the Hong Kong Green Building Council and Construction Industry Council.

O-PARK2 has begun treating food waste collected from the local community from January 2024. Once operating at full capacity, it is expected to reach a maximum processing capacity of up to 300 tonnes of food waste every day, producing 24GWh of electricity per year – enough to power 5,000 households.



In Focus: O-PARK2

Expected Impact
at Full Capacity



300 TONNES
food waste uptake
per day



24 GWh
surplus electricity
per year



Awards in 2023

Construction Industry Council
Sustainable Construction Award

**Hong Kong Green Building Council /
Professional Green Building Council**
Green Building Award

Institution of Civil Engineers
Brunel Medal

**HKSAR Government's Environmental
Campaign Committee**
Hong Kong Awards for Environmental Excellence

Waste-to-Resources

Similar to food, the incineration of organic waste streams such as wood waste has a negative impact on the climate. JEC was commissioned as a contractor to the HKSAR Government to support construction of a Pilot Biochar Production Plant (PBPP) at EcoPark, with capacity to process approximately 6,000 tonnes of wood waste into 1,200 tonnes of biochar each year – producing carbon savings equivalent to the absorptive capacity of almost 300,000 trees.

Biochar has diverse applications, including as a soil conditioner, adsorption material for filtering pollutants, composting enhancer, and building material additive. Wood vinegar is also produced by the plant, as a secondary product.

Construction of PBPP was substantially completed in April 2023, with the plant operating at limited capacity throughput for the ten-month testing phase, treating a total of around 270 tonnes of wood waste and producing 75 tonnes of biochar. Full plant operation will commence in May 2024 following completion of all tests and lab results, and the awarding of relevant licenses.

Capture carbon is also used at the plant, with emissions capture and storage further strengthening its climate benefits. JEC engaged a specialist consultant to register the PBPP with a credible carbon credit programme, which will enable emissions offset by the plant to be counted under voluntary carbon credit schemes.



In Focus: Pilot Biochar Production Plant



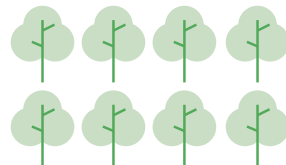
Annual wood waste
processing capacity

6,000 TONNES



Annual biochar
production capacity

1,200 TONNES



Annual equivalent
carbon saving

300,000 TREES



Plastic Recycling

Despite Thailand's high municipal solid waste collection and recycling rate of 88.8%, an estimated 428 kilotonnes per year of plastic waste are still mismanaged. Much of this runs into the rivers and ocean, causing marine pollution which can disrupt marine life as well as the quality and safety of food supplies.

To help address this issue, JEC Thailand supported the development of a plastic recycling factory with capacity to process up to 60,000 tonnes of plastic waste every year. JEC Thailand supplied, installed, tested and commissioned mechanical works to support the facility's operations.

Expanding Impact

Our Hong Kong and regional teams collaborate to explore the potential application of our innovative circular solutions in new markets and territories. We proactively conducted market research into other regions and initiated dialogue with business partners in 2023, with a view to replicating projects such as the TKO Desalination Plant in our other key territories, such as Thailand and Singapore, where there is a clear business case and societal need.

Reducing Waste in our Operations

Environmental and Resources Management

JEC's Group Environmental Policy mandates colleagues to apply a risk and opportunity-based approach to environmental sustainability, including resource use and the minimisation of waste. Furthermore, Jardines' Resource and Circularity Policy requires all Group companies to contribute to the shift from a linear to a circular economy through the adoption of a series of core principles, including waste avoidance, resource recovery, and whole life cycle analysis.

Waste Reduction Initiatives

More than 99% of the waste produced in our operations is from sites. Therefore, we are committed to addressing construction waste through the increased use of technical solutions such as building information modelling (BIM), modular construction and prefabricated materials. Of the 26,778 tonnes of waste we produced in 2023, the vast majority (85%) was diverted from landfill, through recycling, reusing, and use in fill banks.

Our group-wide digitalisation and paperless office drive continued in 2023 to help eliminate unnecessary waste from our offices. Actions included cloud migration, digital invoicing, and digital signing of all internal documents.

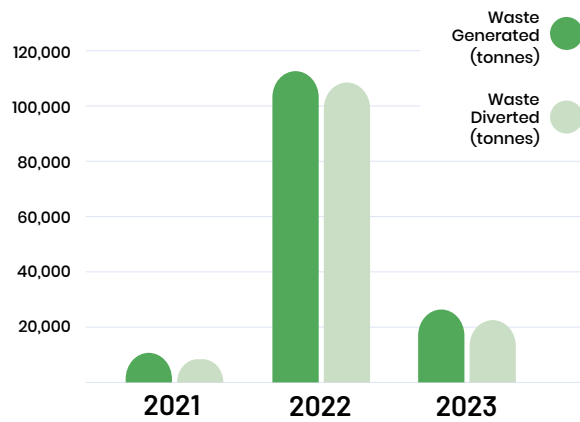
JEC Thailand received a certificate of recognition from the Thailand Greenhouse Gas Management Organization's Low Emission Support Scheme (LESS) for its waste management and recycling initiatives in 2023. Waste is separated into six different streams and handed over to a local recycling partner, resulting in greenhouse gas emission reductions of up to 5.5 tonnes of CO₂e.

Waste and Diversion Performance

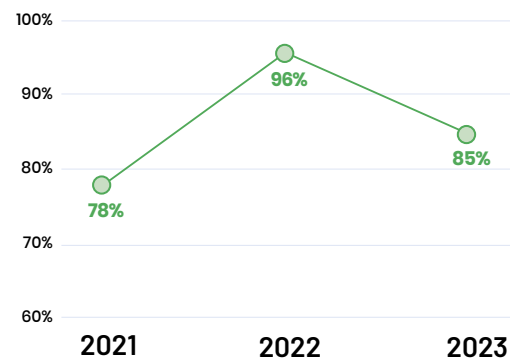
In 2023, JEC produced a total of 26,778 tonnes of waste in our operations, of which 85% was diverted from landfill for recycling or reuse.

Waste generated in 2022 has been adjusted to reflect the actual situation, with an increase mostly contributed by a higher volume of inert construction waste produced. Inert construction waste includes construction debris, rubble, earth and concrete, which are delivered to fill banks for reuse.

TOTAL WASTE GENERATION VS DIVERSION



DIVERSION RATE



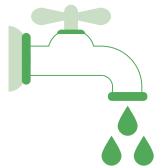
WATER SUFFICIENCY



Water management in Hong Kong faces multiple challenges from a growing local population, regional economic development, and the growing impacts of climate change. To ensure a sustainable, secure future supply for the territory, JEC supports the development of appropriate infrastructure and demand management.



In Focus: TKO Desalination Plant



Clean water supply
per day
during first phase

135,000m³



Local water demand equivalent

5%

Expanding Water Supply

Desalination

JEC was a leading joint venture contractor for the design, build and operation of Phase 1 of Hong Kong Water Supplies Department's Tseung Kwan O (TKO) Desalination Plant, which became operational in December 2023. The plant is the first of its kind in the territory, utilising reverse osmosis technology to convert seawater into potable water. This is much more energy-efficient than traditional (thermal) desalination, reducing the cost and carbon footprint of Hong Kong's future water supply.

The TKO Desalination Plant is designed to satisfy around 5% of Hong Kong's total freshwater demand in its first phase, providing greater resilience to the effects of climate change. Upon completion of the final phase, it will be capable of producing 270,000m³ of potable water per day.

The TKO Desalination Plant was awarded the prestigious Gold Award at the Construction Industry Council's Sustainable Construction Awards in November 2023.

Sewage Treatment

To cope with the growing population and development in Hong Kong's North East New Territories, the existing Shek Wu Hui Sewage Treatment Works needed to be upgraded to increase the area's sewage treatment capacity. Through the application of advanced technologies, the new Shek Wu Hui Effluent Polishing Plant (SWHEPP) will generate higher-quality treated effluent for water reuse, whilst also producing more biogas and high-quality dewatered sewage sludge which can be used for waste-to-energy, through incineration at the T-PARK facility.

To help minimise last-minute changes and improve accuracy during construction, JEC employed advanced BIM techniques during the design phase.

Early 3D visualisation of alternative design options helped enhance efficiency and cost-effectiveness by preventing excess materials and wastage, and helping to avoid lost time.

JEC was also contracted to provide electrical and mechanical works for the new sludge treatment facilities at SWHEPP Main Works Stage 1, which when completed will convert up to 47 tonnes of dry solid sludge to produce 18,000m³ of biogas per day. This can generate approximately 45,000 kWh of electricity to help power the plant's operations. Completion of the project is expected in 2025.

Reducing Water Consumption

Smart Automated Laundry System

MGI is building a smart, fully automated solution to enable enhanced laundry processing for hospitals, which is scheduled for commissioning in the first quarter of 2025. The system combines hardware and software, with real-time monitoring to save steam and towngas, reduce water consumption and prevent waste. For example, by eliminating overspinning, damage to clothing is reduced from over 10% annually to around 2-3%. The system also reduces manual work for hospital or agency staff, and enables better accuracy and control of stocks.





EMPOWERING OUR PEOPLE AND COMMUNITIES





People are at the heart of JEC's business. Engineering is a labour-intensive activity, so as well as providing quality employment, we take great care to ensure that our sites are safe, and our workers healthy and well cared-for. To create and maintain a high-performance culture, we invest significantly in people development, inclusion, and strong stakeholder relationships.



SAFETY, HEALTH AND WELLBEING



The engineering sector is labour-intensive, requiring often demanding, physical work. Ensuring the safety of all our workers at all times is a top priority – including contractors and their staff.

We also recognise that in the new post-COVID reality, colleagues rightfully expect our support to take good care of their health and wellbeing. We strive to do this through a range of approaches.

Providing Safe Workplaces and Sites

Occupational Health and Safety Management

JEC's Occupational Health and Safety Management System complies with the ISO 45001 international standard. Our Group Health and Safety Policy is updated annually and is supplemented by our dedicated Operational Control Procedures, in place to improve workplace hygiene and the performance of the overall safety system and site safety supervision process. We are committed to ensuring that risks to our colleagues' safety are properly managed and addressed through both our in-house safety rules and the promotion of health and safety awareness amongst our colleagues through training.

OHS Training and Meetings

Each JEC employee received an average of 8.2 hours of occupational health and safety training in 2023. Over the course of the year, 18 Safety Awareness Training classes were delivered, with an emphasis on safety leadership and culture at work.

JEC Hong Kong's annual Environment, Health and Safety (EHS) Week was held again in July 2023, with over 1,200 JEC and subcontractor employees participating in a range of activities including a management site visit and workshop, a dedicated subcontractors forum, and the Work Safe Behaviour Award competition.

Regular site inspections are carried out by JEC Senior Managers. Health and safety is a regular agenda item at JEC operational staff team meetings, and colleagues participate in relevant client and onsite meetings. These include site safety management committees, 'Toolbox Talks' and 'Safety Time-outs', where safety plans and protocols are reviewed, employees' and subcontractors' safety performance is discussed, and learnings from past accidents are shared.

For example, JEC Singapore conducted a Safety Time-out with clients Keppel and RQAM. The event sought to promote safe working practices, with all parties taking time away from their daily work to review and reflect on their existing health and safety procedures, and consider potential improvements. The event provided a good platform to build rapport with clients, whilst reinforcing our concerted efforts to maintain safe work sites.



In Focus: Health and Safety Training



Total hours OHS training
— in 2023 —
6,863

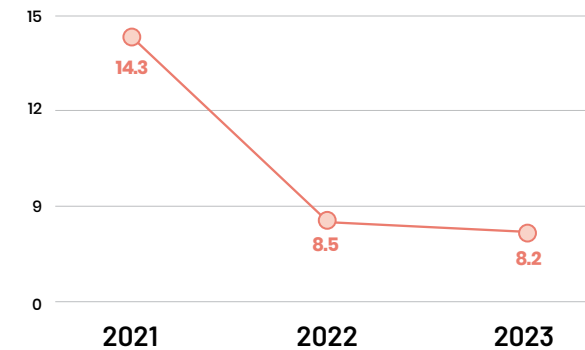


Total Participants
835



Average hours of OHS
— per participant —
8.2

AVERAGE OHS TRAINING HOURS PER PARTICIPANT





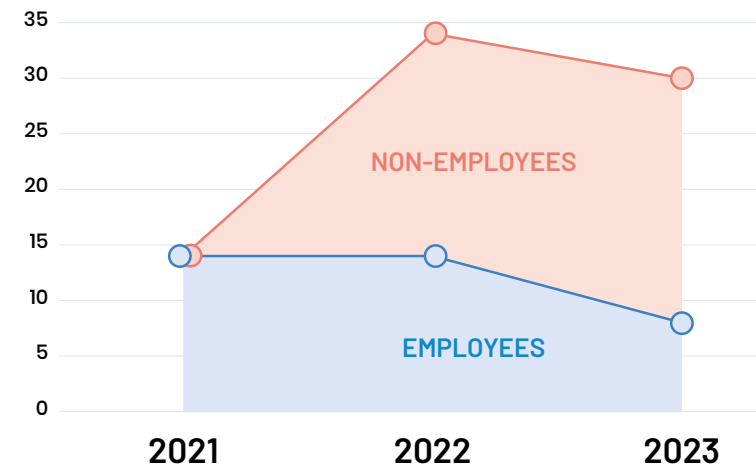
Safety Innovation

BIM and automated solutions are increasingly utilised to mitigate onsite risks in order to enhance health and safety performance, and BIM training is provided to staff. Our Maintenance & Renovation division developed a bespoke self-propelled trailer delivery system to deliver chillers for installation at the Landmark complex in Hong Kong, bypassing the need for labour and equipment and thus reducing injury risks.

OHS Performance in 2023

Across JEC there were no known incidents of non-compliance with statutory regulations or voluntary codes concerning health and safety in 2023. During more than 6.9 million working hours, only eight work-related injuries were recorded, of which none were high-consequence. Amongst our sub-contractors' 5.9 million working hours, 22 work-related injuries were recorded, of which one was high-consequence. There were no fatalities at our sites in 2023.

NUMBER OF RECORDABLE WORK-RELATED INJURIES



Nurturing Health and Wellbeing

Flagship Health and Wellbeing Programmes

JEC colleagues again participated in Jardines' Key2Wellness programme throughout the year, with activities including competitions, webinars in both Cantonese and English, and a series of further webinars for Jardines Mental Health Month.

Health Vaccinations and Tests

JEC continued to offer free flu vaccinations to colleagues and their family and friends in 2023, with more than 100 people benefiting.

Colleagues who are regularly exposed to noisy worksite environments are offered annual audiometry tests, to enable early detection of hearing loss or noise-induced deafness. More than 30 colleagues completed the tests in 2023.



Head Office Renovation

A major renovation of our Head Office was completed in August 2023, incorporating a range of wellbeing benefits such as plants and acoustic materials for better sound absorption, and low-VOC furnishing materials for improved indoor air quality. Colleagues responded positively to the integration of more collaborative, social and flexible spaces, as well as visible opportunities to contribute to sustainability, such as energy saving, recycling and food waste reduction.

Employee Health and Wellbeing Benefits

Medical insurance for Hong Kong employees was renewed in July, with the policy remaining unchanged. JEC's employee assistance programme, Care Line, offers a 24-hour hotline, with counselling services covering areas from work-related stress to family issues. Face-to-face and clinical psychology services are also available.

As a special reward to celebrate JEC's 100th birthday, and to help promote work-life balance, all employees were offered one day of special leave in 2023.

Colleagues are invited to join Jardine Sports Association, which organises regular sporting, recreational and social activities.

Employees are encouraged to join volunteering opportunities which help support good health and wellbeing, such as the Walk Up Jardine House, raising money for MINDSET, Jardines' mental health charity. Other activities included an outdoor tree planting event at Kadoorie Farm and Botanical Garden, and Christmas tree decorating activity at the Rotunda, One Exchange Square.



WORKFORCE AND COMPANY CULTURE

Our engineering services require highly specialised, advanced skills. With high demand across the region and a tight labour supply, competition for talent is intense. Therefore, it is vital that we offer employees an attractive and rewarding workplace – effective and innovative, with appealing benefits, fruitful opportunities, and an inclusive culture.



High-Performance Culture

Organisational Structure

The introduction of three distinct business divisions at the start of 2024 (see ‘Our Business in 2023’) – Sales & Services, Business Development & Contracting, and Digital & Sustainability – was designed to streamline our operations, enabling colleagues to work more efficiently and effectively. At the same time, the introduction of a new Sales & Key Account Management team enables us to more regularly and systematically engage our major customers, to better understand their ever-changing needs and communicate our innovative solutions, in order to identify mutually beneficial collaboration opportunities.

To support the rollout of the organisational restructure in January 2024, a Town Hall Meeting was held for all staff in November 2023, facilitating open dialogue and the exchange of ideas between management and colleagues. Dedicated workshops were rolled out for management and operational colleagues, and the frequency of teambuilding activities increased, to further build our high-performance culture.



Innovation and Efficiency

As noted previously, the organisational restructure helps reinforce our tech-driven green platforms and product offerings, combining digital and sustainability within a single division. With more defined focus areas and accountabilities, the new structure enables increased cross-divisional collaboration, to co-develop and bring new solutions to market.

Our Executive Committee regularly discusses emerging innovation opportunities. An Innovation Fund was launched, to further embed an innovation culture across our teams. All JEC business units may access the fund by submitting proposals which identify new areas for potential innovation and the integration of new technologies, such as automation.

Our Head Office renovation, completed in 2023, enables enhanced productivity with more flexible, modular spaces, extra collaboration areas, and a healthier, more comfortable work environment.

To further enhance the efficiency of our human resources services, JEC was the first Jardine Matheson subsidiary to make use of the Group's centralised back-office services at the new Jardine Service Centre (JSC) in Foshan, Mainland China.

The JSC team shares workloads relating to recruitment, employee data management, and the onboarding and offboarding of employees, thereby enabling JEC's People & Culture team to focus more on providing value-adding services to employees and consultancy services to the business.

In August, we launched a new People & Culture Service Portal, providing Hong Kong employees with online access to a range of services, such as self-generation of salary and employment proof, and self-management of personal updates. Supervisors and Managers can also leverage the platform's resources requisition functions for recruiting and hiring.

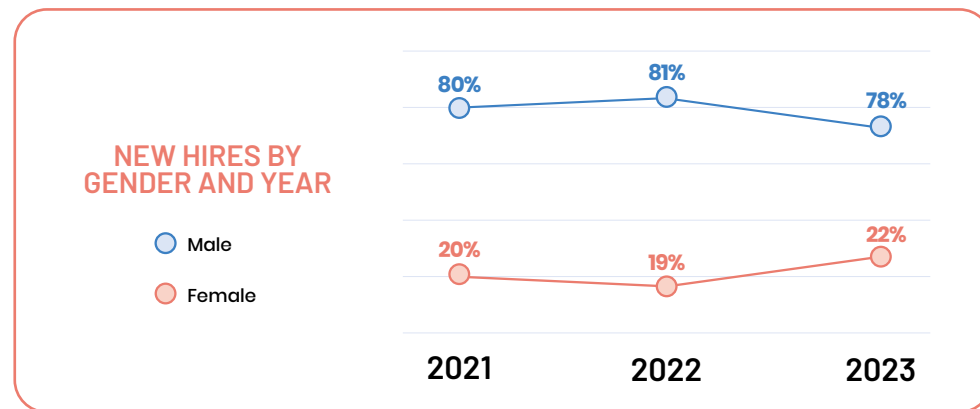
Recruitment and Retention

In a competitive marketplace, our effectiveness depends on being able to attract and retain the best talent. We are committed to providing a stable, dynamic and harmonious workplace where employees are supported to fulfil their potential. We offer a competitive package and employee benefits, including training and development, and a caring and inclusive workplace.



To secure the best people, we pursue multiple strategies – including graduate recruitment, internal referral, recruitment from outside Hong Kong/our primary markets, and robust succession planning. We also strive to show employees our appreciation for their efforts; for example, in 2023 all employees were gifted a special Eco Gift Pack as part of our 100th birthday celebrations.

JEC employed 506 new external hires in 2023. Nearly 22% of our new hires this year were women, an increase from 19% in 2022. Over half of our new hires were under 30 years old.



Our retention rate in 2023 was 95.7% – a huge vote of confidence from our colleagues, in an industry where staff turnover is typically high.

Performance and Rewards

JEC conducts formal annual performance reviews with its employees. Salaries are reviewed on a yearly basis, with reference to company performance, market conditions, individual performance, and other factors. Discretionary bonus and incentive schemes are in place, and high-performing colleagues are supported to progress into more senior roles.

Further employee benefits include Occupational Retirement Schemes Ordinance-approved retirement plans, medical insurance, sports and recreational activities, and access to holiday homes. Many of these benefits are also available to colleagues' families

People Development

Employee Training and Development

Reflecting our commitment to building a high-performance culture and putting people at the heart of all that we do, all human capital and human resources-related functions within JEC became known as the People & Culture team from October 2023. A dedicated People & Culture Director oversees all people-related policies, programmes and partnerships, and provides senior representation of people-related issues at the executive level.

JEC provides cross-cutting training to all staff, as well as tailored, technical training for specific business units. Employees undertake regular needs assessments and are offered opportunities to continuously develop their knowledge, skills and competencies.

More than 534 colleagues joined the online Jardine Learn Fest in June 2023, featuring webinars on a range of topics such as 'The Future of Competitive Strategy and Overcoming Digital Myopia', 'Empowering Your Workforce with GPT & Hack Asia Finalist Pitch', and 'From Leadership Orthodoxies to Leadership Heresies: Unconventional Keys to Unlock an Entrepreneurial Culture'. Employees also have access to Jardines' e-learning platform, to learn at their own pace – anytime, anywhere.



Training is provided on specific, priority topics. For example, more than 100 staff completed a two-day workshop on contract management in August 2023.

Employees are encouraged to attend external seminars and conferences relevant to their work, with time off and subsidies through our Education, Learning and Development Sponsorship Scheme (ELDSS). Around 970 colleagues participated in the scheme in 2023, which also provides sponsorship for formal academic and professional study.

AVERAGE TRAINING HOURS PER EMPLOYEE, BY YEAR

2021



14.0
Hours

2022



23.5
Hours

2023



24.9
Hours

We strive to offer unique and engaging learning experiences, particularly for our young engineers. In July 2023, over 70 of them joined an office visit and sharing session by HKIE's Mechanical, Marine, Naval Architecture and Chemical MMNC Division and Mechanical Discipline Advisory Panel.



Engaging Future Generations

Encouraging and nurturing young engineers is both a business imperative and a social responsibility. JEC staff regularly volunteer to encourage students to pursue science, technology, engineering and mathematics (STEM) subjects (please see Communities section below).

To give students a taste of STEM careers, every year we offer internship opportunities. In 2023, we welcomed twelve higher diploma students from Hong Kong's Institute of Vocational Education to work with us between January and April, split between our Electrical & Mechanical Contracting and Maintenance & Renovation business units. We also welcomed two final year students from the Hong Kong University of Science and Technology between February and June.

Apprenticeships Programme

JEC's Apprenticeship Training Programme, in partnership with Hong Kong's Vocational Training Council, continues to provide on-the-job training to young people. In September 2023, we welcomed 25 new apprentices to the programme. A further seven young people became apprentices at our joint venture businesses with Trane in Hong Kong and Thailand.

The 2023 Presentation Ceremony for JEC scholarships and apprenticeships was held in November, with eleven JEC apprentices receiving their Certificates of Completion, and another eleven apprentices awarded scholarships to continue their education.

One of our previous apprentices, who joined JEC in 2022 and completed the programme in 2022, was awarded the Outstanding Apprentice Award by VTC at an official Presentation Ceremony in March 2023.

Management Trainee Programme

JEC's two-year Management Trainee programme, recognised by the Hong Kong Institution of Engineers (HKIE) as 'Scheme A graduate training', offers a fast-track option for graduates wishing to obtain full HKIE professional status. The programme delivers a structured, comprehensive training curriculum for graduates to develop as leaders and managers.

In 2023, 17 new Management Trainees were recruited to the programme. To kick off their journey with JEC, the trainees were invited to an engaging, interactive induction session where they met John Witt, Jardines Group Managing Director, and JEC senior leaders to learn about the company, business and culture. Over the two-year programme, trainees will rotate across JEC business units, work on some of our signature projects, and gain exposure to the Jardine Group.

Experienced senior JEC colleagues provide mentoring and guidance, supporting Management Trainees to set clear goals, develop five-year career development plans, and enhance the soft skills they will need to progress to management level.



In Focus: Female Progression and Leadership



“There is a gender gap for pursuing STEM subjects in secondary schools and engineering subjects at university. We engage people in communities to promote STEM education, as well as partnering with The Women's Foundation. We formulate a yearly plan to further promote diversity, equity and inclusion within the Group.”

Alice Wong, our General Manager for Sales & Key Account Management, is exemplary of professional development and progression into leadership at JEC. Having joined us as a Trainee Engineer, Alice went on to lead a team of engineering colleagues when she was promoted to managerial level. JEC has supported Alice to participate in a range of trainings and development programmes, including a Masters degree in Advanced Leadership Practice and, more recently, a Women's Leadership Programme, both of which were fully sponsored by JEC.

As JEC's Diversity & Inclusion Champion within Jardines, Alice recognises the challenges of attracting more women into our industry.

Alice actively promotes industry leadership, serving as a Standing Committee Co-opted Member with the Hong Kong Green Building Council. In January 2024, JEC nominated Alice to represent the company on HKGBC's Industry Standards and Practices Committee, collaborating with industry peers to drive industry standards and encourage the adoption of sustainability knowledge and practices, thus contributing to the development of a sustainable built environment in Hong Kong and beyond.

Workplace Culture

Employee Engagement

In 2023, our annual Employee Engagement Survey invited feedback from all Group colleagues, achieving an impressive response rate of 88% (higher than the global average of 75%, according to the Glint Global Benchmark). The survey focused on three key areas: Culture, Engagement, and Inclusive Leadership.

They survey showed that a high proportion of colleagues agree that safety is a top priority for JEC (83%), that the company has a culture of continuous improvement (71%), and that colleagues adapt well to change (71%). There was also a high degree of confidence that feedback provided through the survey would lead to meaningful action (70%).

Areas where colleagues expressed strong agreement (above 70%) but where responses fell below the Glint Asia Benchmark included receiving feedback from line managers, feeling comfortable being their authentic self at work, and knowing that their work is meaningful. We continue to explore ways to strengthen these important areas through our People & Culture activities in 2024.

JEC's 100-year anniversary in 2023 provided an opportunity to further engage and show appreciation to our staff. Over 1,300 colleagues from Hong Kong, Macau, Shenzhen, Thailand, Singapore and the Philippines were reunited at our Centennial Gala Dinner in March, while 29 long-serving staff and their families joined our Management Team for the traditional Jardines Noonday Gun Ceremony at Hong Kong Harbour in February.

Diversity and Inclusion

We are committed to providing workplaces where people from all backgrounds thrive and contribute to our success. In 2023, our online learning platform delivered content on a range of diversity and inclusion-related topics, with 220 colleagues completing the series including 30 at manager level or above. There were no reported incidents of discrimination at JEC in 2023.

We aim to provide an accommodating workplace for people from a range of backgrounds and circumstances. Support for working parents was provided in the form of a 'Lunch & Learn' forum in March as part of our celebrations for International Women's Day, with over 20 colleagues participating and sharing their experiences of balancing family life and work.

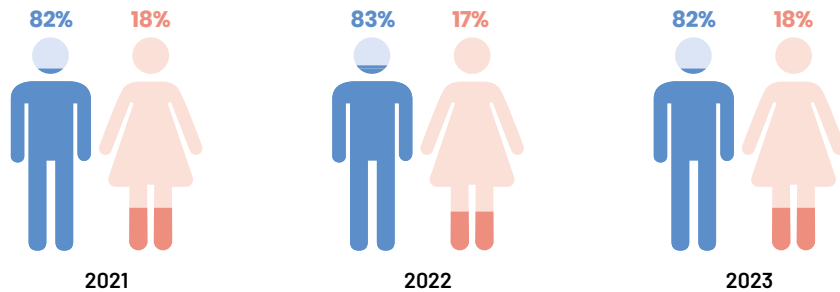
Diversity also means that a range of voices are heard. JEC holds quarterly meetings where managers from different JEC country offices are invited to share their perspectives, insights and challenges. To help foster effective working relationships, a Directors' Walk was held in March 2023, where senior leaders from across JEC joined an 8km hike, helping to boost communication and teamwork.

Gender Equity

Engineering remains heavily male-dominated. To attract more women into our industry, we work with the Women's Foundation to organise STEM experience days for secondary school students, with an emphasis on female success stories. We actively support Jardines initiatives, such as the Women in Leadership Programme, which offers virtual coaching to empower high-apptitude employees to navigate hurdles in order to achieve their leadership potential.



PERCENTAGE OF EMPLOYEES BY GENDER



The female-to-male ratio of JEC's permanent employees remained steady in 2023, at 18% female versus 82% male.

JEC has committed to a target to increase the proportion of female employees at managerial level or above to 29% or more by 2026. The proportion of female JEC employees at managerial level or above increased from 17% in 2021 to 22.3% in 2023.



Sustainability Culture

Embedding a sustainability culture across our business is critical, both to achieve our sustainability goals and to meet the growing preference of employees to work for companies that operate responsibly. Our Year-End Innovation Showcase in December 2023 highlighted a range of upcoming solutions to support Hong Kong's Smart City Vision; we also delivered internal workshops and communications on our sustainability efforts.

We regularly communicate with colleagues about the increasing integration of sustainability features and benefits across our projects, products and services. Internally, our Head Office renovation completed in 2023 further enables and encourages employees to adopt sustainable behaviours in their daily work.

A sustainability mindset is also encouraged through volunteering and informal events. JEC's Urban Farming Initiative in 2023 aimed to inspire colleagues to embrace green living in an urban context, comprising interactive, hands-on sessions on topics

such as organic and regenerative farming, plant propagation, pest control, disease management, composting, and food waste reduction.

In September, JEC participated in the Biz-Green Dress Day event as part of Hong Kong's Green Building Week 2023. Colleagues were encouraged to wear bright colours representing different sustainability themes: red for health and wellbeing, green for environmental sustainability, blue for resource efficiency, and yellow for innovation.

In Focus: Urban Farming Initiative



28 Employees Participating



170 Hours of Participation



03 Months Duration of Initiative

COMMUNITY ENGAGEMENT



JEC contributes to economic, social and community development in our key markets.

We proactively engage young people and future engineering talent to develop their skills and careers, and encourage our employees to participate in volunteering activities, including environmental projects.

In total, 240 JEC colleagues participated in community investment and philanthropic giving activities in 2023, with 764 people benefiting. More than HK\$700,000 was contributed by JEC and its staff to charities, non-governmental organisations and research institutes (non-related to commercial activities).

JEC has been a member of the Hong Kong Council of Social Service's Caring Company Scheme since 2006.

Encouraging Youth Skills

JEC staff regularly volunteer in schools and other education institutions to encourage children to pursue STEM subjects. In July 2023, JEC and Zung Fu Company teamed up for an experiential STEM education day for primary school children in Tai Po, highlighting how engineering is connected to their daily lives and can enhance quality of life. The day included a showcase of electric vehicles, a crash course on EV charging, and a hands-on model solar-powered car building activity.



Colleagues at JEC Thailand partnered with a Technical College in Khon Kaen province as volunteer guest teachers, delivering lessons every week over a four-month semester starting in November 2023. Topics included CAD drawings for industrial piping and electrical systems. The project helps facilitate access to adequate and efficient tools and software, alongside opportunities for experiential learning and practical engagement with subject matter experts. The course was completed by 21 students, with 90% achieving the pass criteria.

We actively encourage soon-to-be graduates to apply for employment at JEC. To this end, we participated in the College of Engineering & College of Science Career Fair 2023 at City University of Hong Kong, with fifteen students submitting job applications during the fair. In addition, we held two career webinars to introduce our Management Trainee Programme to university students.

Caring for the Environment

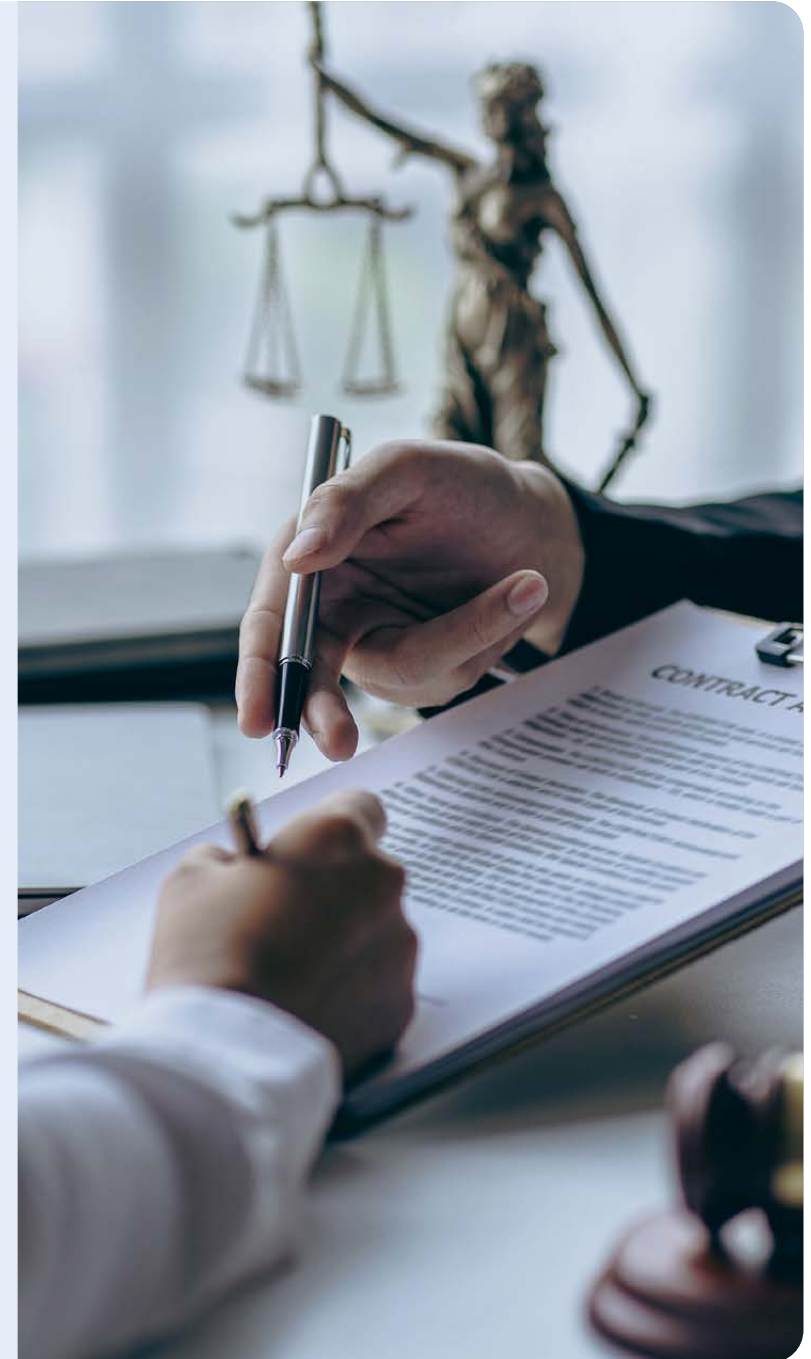
As part of our 100th anniversary celebrations, 33 runners from JEC participated in the Green Power Hike 2023 in January. Nine teams competed in 10km and 25km races, raising money for the charity's environmental initiatives.

To help offset the carbon footprint of JEC's centennial Customer Cocktail Reception, a tree-planting event was organised at Kadoorie Farm and Botanic Garden in November. JEC volunteers were joined by primary aged students from Tai Po.





EMBEDDING GOOD GOVERNANCE





JEC's organisational restructure (see 'Our Business in 2023') positions JEC for even greater strategic focus and effectiveness going forward. This is further supported by our robust approach to corporate governance, including risk management, business ethics and responsible sourcing, which continue to ensure accountability, transparency and trust – both internally and externally.

JEC's Executive Committee is appointed by Jardine Matheson Group and is chaired by our Chief Executive. Our Executive Committee meets with the Board and Finance Committee periodically to report on the company's strategy, performance, and significant business activities and risks. JEC's corporate governance policies and procedures are reviewed on a regular basis.

ACQUISITIONS AND BUSINESS INTEGRATION



JEC is a dynamic and fast-growing business. As we continue to expand, we act quickly to integrate new businesses gained through acquisition, standardising governance to ensure consistency across the Group. After we acquired MGI Group Holdings Limited in 2021, its full integration into JEC was completed in 2022.

In November 2023, we announced our new strategic investment in Krueger Engineering Group, representing a significant milestone for both companies. Krueger's capabilities will help bolster JEC's multi-disciplinary Electrical & Mechanical Contracting services, while Krueger benefits from enhanced access to large-scale projects, new technologies, and JEC's corporate resources.

An effective transition strategy plan has been implemented to ensure Krueger's smooth integration into JEC.



DATA SECURITY



As data becomes more ubiquitous and our business ever more digital, ensuring data privacy and cybersecurity is a top priority for JEC. This helps us maintain operational continuity, as well as the trust of our stakeholders and clients.

Data Security Management

JEC's Information Security Management System complies with the ISO/IEC 27001 international standard and is audited internally and externally. Building on Jardine Matheson's Information Security Guidelines 2022, JEC introduced its own customised and localised IT Policy and Procedure Manual in October 2023, providing further clarity and guidance in areas such as physical and operational security, asset management, and access control. Our Cyber Incident Response Plan was updated in July 2023 to ensure clear processes, roles and responsibilities, should a cyber incident occur.

Employee Data Training

Employees, especially new hires, are routinely trained in data and cybersecurity measures such as virus protection, phishing attack mitigation, and IT disaster recovery plans. Reminders are communicated to staff on the safe use of JEC's network and systems, in order to ensure that our data remains secure.

In June 2023, all JEC employees with computer access completed compulsory Online Security Awareness training, delivered by an external expert. Employees and personal information processors are required to treat and handle personal information as highly confidential.

Across JEC Group, there have been no substantiated breaches or complaints related to data security or customer privacy.



RISK MANAGEMENT



JEC project teams operate in highly technical, complex environments, presenting risks that cannot always be fully foreseen. Our industry is ever-changing, impacted by a range of external factors that remain beyond our control. Thus, our robust approach to risk management helps to ensure that risks are monitored and addressed in a structured and systematic way.



Enterprise Risk Management

JEC's Risk Management and Controls Framework provides a structure for internal risk assessment processes and mitigation measures. Business units must regularly identify any risks that may deter the business from achieving its goals. 'Risk Champions' develop appropriate counter-measures to reduce and control risks, and continuously monitor their effectiveness.

As sustainability becomes ever more integral to our business, we plan to incorporate climate risks into our biannual Enterprise Risk Register process, which reports upwards to Jardines, from 2024.

Business Continuity

Each JEC regional office has a Crisis Management Team (CMT) to lead crisis resolution and communications during a crisis incident. The CMT in our Hong Kong headquarters comprises senior executives including our Chief Executive, Chief Financial Officer and Chief Operating Officer. An internal manual for the CMTs provides clear processes for decision-making and action.

JEC's Business Continuity Plan sets out responsibilities, actions and procedures to recover critical business functions in the event of a disaster, in order to minimise operational and financial impacts. The plan describes how the Emergency Operations Team would interact with dedicated functional recovery teams, as well as our regional operations and subsidiaries.

Product and Project Risk Assessments

For emerging risks to be identified and addressed in a timely way, our Peer Review Policy and Procedure requires a third party within JEC, independent of project teams, to periodically assess all projects in terms of status and effectiveness. Any new risks are flagged and discussed, and additional support from management secured, where necessary, to help manage and mitigate major challenges. This ensures projects are completed on time, on budget and to a high standard.

BUSINESS ETHICS



JEC maintains relationships with a range of business partners, to deliver and support major projects that often have a tangible impact on people's lives. Conducting these relationships in an ethical and transparent way is vital for maintaining the confidence of our customers and stakeholders, and to ensure that resources are used in an optimal way.

Code of Conduct

Jardines' Code of Conduct is applicable to all JEC employees. The Code sets out expectations and obligations with regards to ethical areas such as illicit payments, entertainment, anti-competitive practices, and conflicts of interest. A leaflet summarising the Code of Conduct is distributed to all new employees upon joining JEC, and refresher training is delivered regularly.

Anti-Corruption

The Independent Commission Against Corruption (ICAC) again delivered anti-corruption training to JEC employees in 2023, highlighting corruption-prone areas in the industry, and legal provisions, using case study illustrations. In addition, our Speak Out service, run by an independent consulting firm, enables employees to anonymously report on any actual or suspected misconduct, including bribery, corruption or fraud.

RESPONSIBLE SOURCING AND PARTNERSHIPS



JEC has a large and varied supply chain, including goods and services for our offices, subcontractors and technical specialists on our sites, and materials for a wide range of purposes including construction, renovation, engineering and maintenance. Suppliers play a major role in enabling our quality standards, business continuity and sustainability, so these relationships must be managed responsibly and for mutual benefit.

Procurement Policy

JEC's Procurement Policy sets out our standards and procedures for ensuring that procurement of goods and services is handled in a manner that is consistent, transparent, and fair.



To streamline the procurement process and increase efficiency, a new eProcurement System was commissioned in 2023, with full implementation scheduled for April 2024. Expected benefits include enhanced record-keeping and quote comparison, vendor registration and data management, procurement traceability and cost tracking, and supplier performance evaluation.

Supplier Sustainability

JEC's procurement practices align with Jardines' Environmental Policy and Human Rights Policy. All vendors registered on our eProcurement system must accept Jardine Matheson's Code of Conduct as well as JEC's safety, quality and environmental requirements, including ISO 14001 and ISO 45001 certification, which respectively encompass sustainable resources and materials use, and occupational health and safety.

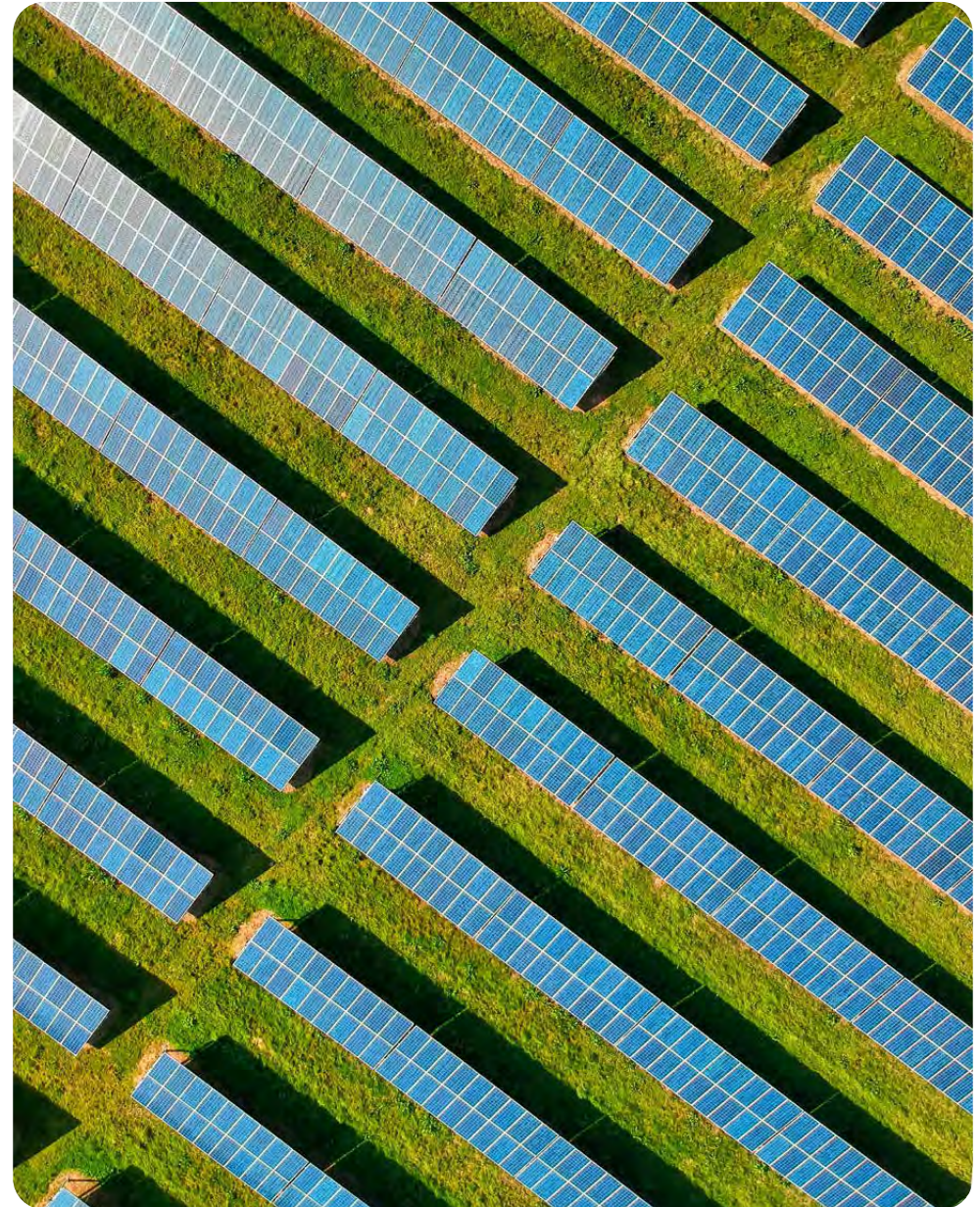
Jardine Matheson is developing a Sustainable Procurement Policy and JEC is in early stages of exploring solutions for supplier sustainability assessment, to be further developed in 2024 and beyond. As our sustainability ambitions continue to grow, we look to the market to supply new innovative inputs and technologies that will enable us to continue powering sustainable growth.

Sustainable Finance

Finance is essential to JEC's business development and growth, and in this area too, we aim to ensure that our business partners are aligned with our sustainability values and ambition.

In 2023, we moved our corporate savings to Crédit Agricole CIB's new ESG-linked account, becoming one of the first clients to take up this service. The account enables corporate savers to earn a higher yield on account balances as their ESG performance improves. This is a reflection of both our continued sustainability commitment and confidence in achieving our goals.

Crédit Agricole CIB was recognised with two awards at the Hong Kong Green and Sustainable Finance Awards 2023, for the new ESG-linked account and its growing issuance of sustainable loans.



APPENDICES



SDGS CONTRIBUTION AND PROGRESS

We have considered how JEC's business activities contribute to the international sustainable development agenda, namely the United Nation's Sustainable Development Goals (SDGs). Highlighted below are our key contributions, and key areas of progress in 2023.

	Key Contributions	Progress in 2023
8 DECENT WORK AND ECONOMIC GROWTH 	<ul style="list-style-type: none"> » Driving economic productivity and growth » Provision of high quality employment and work opportunities » Protection of labour rights and provision of safe and secure working environments » Support for youth skills and employment 	<ul style="list-style-type: none"> » New infrastructure for Asia's growing economies, and efficiency-enhancing solutions for industry (see below) » Continued provision of quality employment, with 506 new hires in 2023 » Another 25 young people joining JEC's Apprenticeship Training Programme
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	<ul style="list-style-type: none"> » Develop sustainable, resilient and inclusive infrastructure with affordable and equitable access » Upgrade infrastructure and retrofit industries for enhanced sustainability » Adoption of environmentally sound technologies and industrial processes 	<ul style="list-style-type: none"> » Phase 1 of TKO Desalination Plant completed in 2023 » Ongoing work towards two new urban rail stations for Bangkok MRT » Sustainability-enhancing solutions for industry including energy optimisation, smart maintenance and EV charging
12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	<ul style="list-style-type: none"> » Sustainable management and efficient use of natural resources » Halve per capita global food waste » Reduce waste generation through prevention, reduction, recycling and reuse 	<ul style="list-style-type: none"> » O-PARK2 food waste-to-energy facility and Pilot Biochar Production Plant substantially completed in 2023 » Completion of Phase 1 of TKO Desalination Plant and continuing development of SWH Effluent Polishing Plant
13 CLIMATE ACTION 	<ul style="list-style-type: none"> » Build knowledge and capacity for climate change mitigation and adaptation 	<ul style="list-style-type: none"> » Low-carbon solutions for industry including energy optimisation and EV charging » Low-carbon infrastructure to support circular economies and water sufficiency

PERFORMANCE METRICS

GRI	HKEX	Environmental disclosures	UOM	2022	2023
Resource management					
302-1	A2.1	Energy consumption			
		Electricity	kWh	2,504,024	1,984,155
		Gasoline	L	81,710	78,290
		LPG		2,595	2,073
		Diesel (pure diesel, ULSD, 95% of B05 biodiesel)		1,397,807	1,735,685
		Total energy consumption: non-renewable	MJ	65,569,765*	75,878,586
		Energy consumption: renewable		1,718,709	2,200,962
		Total energy consumption		67,288,475	78,079,548
302-3		Energy intensity	MJ/USD	0.092	0.103
301-1	A2.5	Materials used by weight or volume			
		Total weight of or volume of materials used to produce and package the organisation's primary products	kg	400 ¹	N/A
		Non-renewable materials		N/A	N/A
		Renewable materials		400	N/A
Environmental impact management					
305-1,2	A1.2	GHG air emission			
305-1		Direct (Scope 1) GHG emissions	tCO ₂ e	4,005	4,831
305-2		Indirect (Scope 2) GHG emissions from energy purchase		1,147	934
		Total GHG emissions		5,152	5,765
305-4		GHG emissions intensity	tCO ₂ e/Mio USD	7.02	7.61
306-3		Solid waste generated			
		Total waste generated	tonnes	114,293*	26,778

*The data has been adjusted to reflect actual situation.

¹Accounted for the data on wood material.

GRI	HKEX	Environmental disclosures	UOM	2022	2023
		Generation based on waste type			
		Hazardous waste	tonnes	130	45
		Non-hazardous waste		114,163*	26,733
		Generation based on waste stream			
		Plastic waste	tonnes	20	19
		Construction waste		114,094*	26,655
		General office waste		173	45
		Other general waste		5.29	10
		JDI-specific waste [#]		-	48
		Food waste		0.99	0.94
		Solid waste disposal			
		Disposal based on waste type			
		Hazardous waste disposed	tonnes	62	3.73
		Non-hazardous waste disposed		4,116*	3,888
		Disposal method			
		Incineration	tonnes	65	5.58
		Landfill		4,114*	3,886
		Other disposal method		0.16	N/A
		Disposal based on waste stream			
		Plastic waste	tonnes	3.96	1.99
		Construction waste		4,102*	3,871
		General office waste		67	3.89
		Other general waste		4.58	3.45
		JDI-specific waste [#]		-	10
		Food waste		0.93	0.89

*The data has been adjusted to reflect actual situation.

[#]In 2023, production-related waste e.g. Contaminated packaging materials from rework/raw materials, Empty Metal Drums from raw materials, Expired/damaged sealant products was separated into a new category called "JDI-specific waste".

GRI	HKEX	Environmental disclosures				UOM	2022	2023		
306-4	A1.3	Solid waste diverted from disposal								
		Diversion based on waste type								
		Hazardous waste diverted				tonnes	68	42		
		Non-hazardous waste diverted					110,047*	22,845		
		Diversion method								
		Compost				tonnes	0.05	2.42		
		Re-use					0.72	30		
		Recycling					110,114*	22,854		
		Diversion based on waste stream								
		Plastic waste				tonnes	16	17		
		Construction waste					109,992*	22,784		
		General office waste					106	41		
		Other general waste					0.72	6.29		
		JDI-specific waste [#]					-	38		
		Food waste					0.05	0.05		
GRI	HKEX	Social disclosures			2022		2023			
Employee management										
401-1	B1.1 B1.2	Employee hiring			Female	Male	Overall employee	Female	Male	Overall employee
		Total number of employees			517	2,470	2,987	532	2,421	2,953
		Total employees (percentage of total)			17.3%	82.7%	100%	18.0%	82.0%	100%
		Total new hire employees			126	545	671	110	396	506
		New hire employees (percentage of total)			18.8%	81.2%	100%	21.7%	78.3%	100%
		Total employee turnover			122	483	605	87	457	544
		Employee turnover (percentage of total)			20.2%	79.8%	100%	16.0%	84.0%	100%

*The data has been adjusted to reflect actual situation.

#In 2023, production-related waste e.g. Contaminated packaging materials from rework/raw materials, Empty Metal Drums from raw materials, Expired/damaged sealant products was separated into a new category called "JDI-specific waste".

GRI	HKEX	Social disclosures	2022			2023		
401-2		Benefits provided to full-time employees that are not provided to temporary or part-time employees	Female	Male	Overall employee	Female	Male	Overall employee
		Life insurance	73.9%	66.0%	67.4%	74.1%	66.7%	68.0%
		Health care	60.5%	75.1%	72.6%	92.1%	91.8%	91.9%
		Disability and invalidity coverage	32.1%	39.3%	38.1%	65.8%	62.6%	63.2%
		Parental leave	96.5%	76.9%	80.3%	99.6%	99.8%	99.7%
		Retirement provision	82.6%	77.7%	78.5%	83.1%	80.4%	80.9%
401-3		Parental leave						
		Total number of employees entitled to parental leave	514	1,884	2,398	530	2,415	2,945
		Total number of employees that took parental leave	25	15	40	8	40	48
		Total number of employees that returned to work within reporting period	23	15	38	8	40	48
		Total number of employees still employed 12 months after their return to work	21	14	35	8	33	41
402-1		Labor-management relations						
		Minimum number of weeks' notice typically provided to employees	1-4weeks			1-4weeks		
		Are notice period and provisions for consultations and negotiations specified in collective bargain agreements?	Yes ²			Yes ³		
403-8		Employees/workers covered by OHS system	Employees	Workers; internally audited	Workers; externally audited	Employees	Workers; internally audited	Workers; externally audited
			2,987	2,987	2,987	2,953	2,953	2,953
			100%	100%	100%	100%	100%	100%
403-9	B2.1 B2.2	Work-related injuries	All employee	Non-employee		All employee	Non-employee	
		The number of fatalities as a result of work-related injury	0	1		0	0	
		The number and rate of high-consequence work-related injuries (excluding fatalities)	1	2		0	1	
		The number recordable work-related injuries	14	20		8	22	

²It only applied for JDI.

³It only applied for JEC Singapore and JDI.

GRI	HKEX	Social disclosures	2022			2023		
		The main types of work-related injury	» Burn » Contusion & bruise; fracture; laceration & cut » Sprain & strain » Electric shock			» Burn » Contusion & bruise; fracture, laceration & cut » Sprain & strain » Irritation		
		The number of hours worked	7,054,400		6,945,800	6,907,800		5,917,200
403-10	B2.1 B2.2	Work-related ill-health	All employee			All employee		
		Total cases of recordable work-related ill health	Data not collected			0		
404-1	B3.1 B3.2	Employee training and development						
		Average training hours provided to employees						
		Senior executive	22.16			32.30		
		Manager	16.40			23.07		
		Non-manager	24.15			24.76		
		Female	16.03			22.39		
		Male	25.01			25.44		
		All employees	23.46			24.89		
405-1	B1.1	Diversity and equal opportunity	Female	Male	Overall employee	Female	Male	Overall employee
		Percentage of workers in the workforce by gender	17.3%	82.7%	100%	18.0%	82.0%	100%
		Total number of board members	1	3	4	1	4	5
		Board members by gender (percentage of total)	25.0%	75.0%	100%	20.0%	80.0%	100%
Customer management								
416-2	B6	Customer health and safety						
		Incidents of non-compliance with regulations resulting in a fine or penalty	0			0		
		Incidents of non-compliance with regulations resulting in a warning	0			0		
		Incidents of non-compliance with voluntary codes	0			0		

GRI	HKEX	Social disclosures	2022	2023
417-1		Marketing and labelling		
		Sourcing of components of products or services	Yes	Yes
		Content, particularly with regard to substances, that might produce an environmental or social impact		
		Safe use of the product or service		
		Disposal of the product and environmental or social impacts		
418-1	B6.2	Customer privacy and data		
		Total number of substantiated complaints concerning breach of customer privacy	0	0
		Complaints received from outside parties and substantiated by the organisation		
		Complaints from regulatory bodies		
		Total number of identified leaks, thefts, or losses of customer data		

GRI	HKEX	Economic disclosures	2022	2023
Procurement practices				
204-1	B5.1	Proportion of spending on local suppliers		
		Percentage of the procurement budget used for significant locations of operation that is spent on suppliers local to that operation (such as percentage of products and services purchased locally)	80%	81%
Anti-corruption				
205-1		Total number and percentage of operations assessed for risks related to corruption		
		Number of operations assessed for risks related to corruption	0	1
		Percentage of operations assessed for risks related to corruption	0%	100% ⁴
205-2	B7.3	Total number and percentage of governance body members that the organisation's anticorruption policies and procedures have been communicated to		
		Number of governance body members	4	5
		Percentage of governance body members	100%	100%
205-2	B7.3	Percentage of employees that the organisation's anti-corruption policies and procedures have been communicated to, broken down by employee category		
		Total	99.4%	100%
		Senior executive	96.0%	100%
		Manager	99.2%	100%
		Non-manager	99.5%	100%
205-3	B7.1	Confirmed incidents of corruption and actions taken		
		Total number of confirmed incidents of corruption	0	0
		Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	0	0
		Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	0	0

⁴It only applied for JDI.

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GRI Disclosure	HKEX ESG Guide	Disclosure Name	Reporting Location / Remarks
2-1		Organisational details	Chief Executive's Message Our Business in 2023
2-2		Entities included in the organisation's sustainability reporting	How We Manage Sustainability
2-3		Reporting period, frequency and contact point	How We Manage Sustainability
2-4		Restatements of information	Waste Data in 2022 has been restated. Please see the Performance Metrics.
2-5		External assurance	--
2-6		Activities, value chain and other business relationships	Powering Sustainable Growth Empowering our People and Communities Embedding Good Governance Performance Metrics
2-7		Employees	Empowering our People and Communities Performance Metrics
2-8		Workers who are not employees	Performance Metrics
2-9		Governance structure and composition	How We Manage Sustainability
2-10		Nomination and selection of the highest governance body	--
2-11		Chair of the highest governance body	How We Manage Sustainability
2-12		Role of the highest governance body in overseeing the management of impacts	
2-13		Delegation of responsibility for managing impacts	
2-14		Role of the highest governance body in sustainability reporting	
2-15		Conflicts of interest	--
2-16		Communication of critical concerns	How We Manage Sustainability Embedding Good Governance
2-17		Collective knowledge of the highest governance body	--
2-18		Evaluation of the performance of the highest governance body	--
2-19		Remuneration policies	--
2-20		Process to determine remuneration	--

GRI Disclosure	HKEX ESG Guide	Disclosure Name	Reporting Location / Remarks
2-21		Annual total compensation ratio	--
2-22		Statement on sustainable development strategy	How We Manage Sustainability SDGs Contribution and Progress
2-23		Policy commitments	How We Manage Sustainability
2-24		Embedding policy commitment	How We Manage Sustainability
2-25		Processes to remediate negative impacts	--
2-26		Mechanisms for seeking advice and raising concerns	--
2-27		Compliance with laws and regulations	--
2-28		Membership associations	Our Business in 2023
2-29		Approach to stakeholder engagement	Please refer to our Sustainability Report 2021
2-30		Collective bargaining agreements	--
GRI 3: Material Topics 2021			
3-1		Process to determine material topics	How We Manage Sustainability
3-2		List of material topics	
Environmental Topics			
GRI 302: Energy 2016			
3-3		Management of material topics	Powering Sustainable Growth
302-1	A2.1 A2.5	Energy consumption: non-renewable	Powering Sustainable Growth Performance Metrics
302-3	A2.1	Energy intensity	Performance Metrics
GRI 305: Emissions 2016			
3-3		Management of material topics	Powering Sustainable Growth
305-1	A1.2	Direct (Scope 1) GHG emissions	Powering Sustainable Growth Performance Metrics
305-2			
305-4		GHG emissions intensity	
GRI 306: Waste 2020			
3-3		Management of material topics	Powering Sustainable Growth

GRI Disclosure	HKEX ESG Guide	Disclosure Name	Reporting Location / Remarks
306-3	A1.4	Solid waste generated	Powering Sustainable Growth Performance Metrics
306-4	A1.3	Waste diverted from landfill	
Social Topics			
3-3		Management of material topics	Embedding Good Governance
204-1	B5.1	Proportion of spending on local suppliers	Performance Metrics
GRI 401: Employment 2016			
3-3		Management of material topics	Empowering our People and Communities
401-1	B1.1 B1.2	Employee hiring	Empowering our People and Communities Performance Metrics
401-2		Benefits provided to full-time employees that are not provided to temporary or part-time employees	
401-3		Parental leave	
402-1		Labor management relations	
GRI 403: Occupational Health and Safety 2018			
403-1		Occupational health and safety management system	Empowering our People and Communities
403-5		Worker training on occupational health and safety	Empowering our People and Communities Performance Metrics
403-4		Worker participation, consultation, and communication on occupational health and safety	
403-9	B2.1 B2.2	Work-related injuries	
403-10		Work-related ill-health	
GRI 404: Training and Education 2016			
3-3		Management of material topics	Empowering our People and Communities
404-1	B3.1 B3.2	Average hours of training per year per employee	Empowering our People and Communities Performance Metrics
404-2		Programs for upgrading employee skills and transition assistance programs	
404-3		Percentage of employees receiving regular performance and career development reviews	

GRI Disclosure	HKEX ESG Guide	Disclosure Name	Reporting Location / Remarks
GRI 405 : Diversity and equal opportunity 2016			
3-3		Management of material topics	Empowering our People and Communities
405-1	B1.1	Diversity and equal opportunity	Empowering our People and Communities Performance Metrics
405-2		Ratio of female to male basic salary	--
GRI 416 : Customer health and safety 2016			
416-2	B6	Incidents of non-compliance concerning the health and safety impacts of products and services	Performance Metrics
Governance Topics			
GRI 205: Anti-corruption 2016			
3-3		Management of material topics	Embedding Good Governance
205-2	B7.3	Communication and training about anti-corruption policies and procedures	Embedding Good Governance
205-3	B7.1	Confirmed incidents of corruption and actions taken	Performance Metrics
GRI: 418 Customer privacy and data 2016			
418-1	B6.2	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Performance Metrics



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