PLANET

Safeguard The Environment

▶ **CLIMATE CHANGE AND ENERGY MANAGEMENT**
[GRI 302-1, 302-2, 302-3, 302-4, 305-1, 305-2, 305-3, 305-4, 305-5, 305-7]
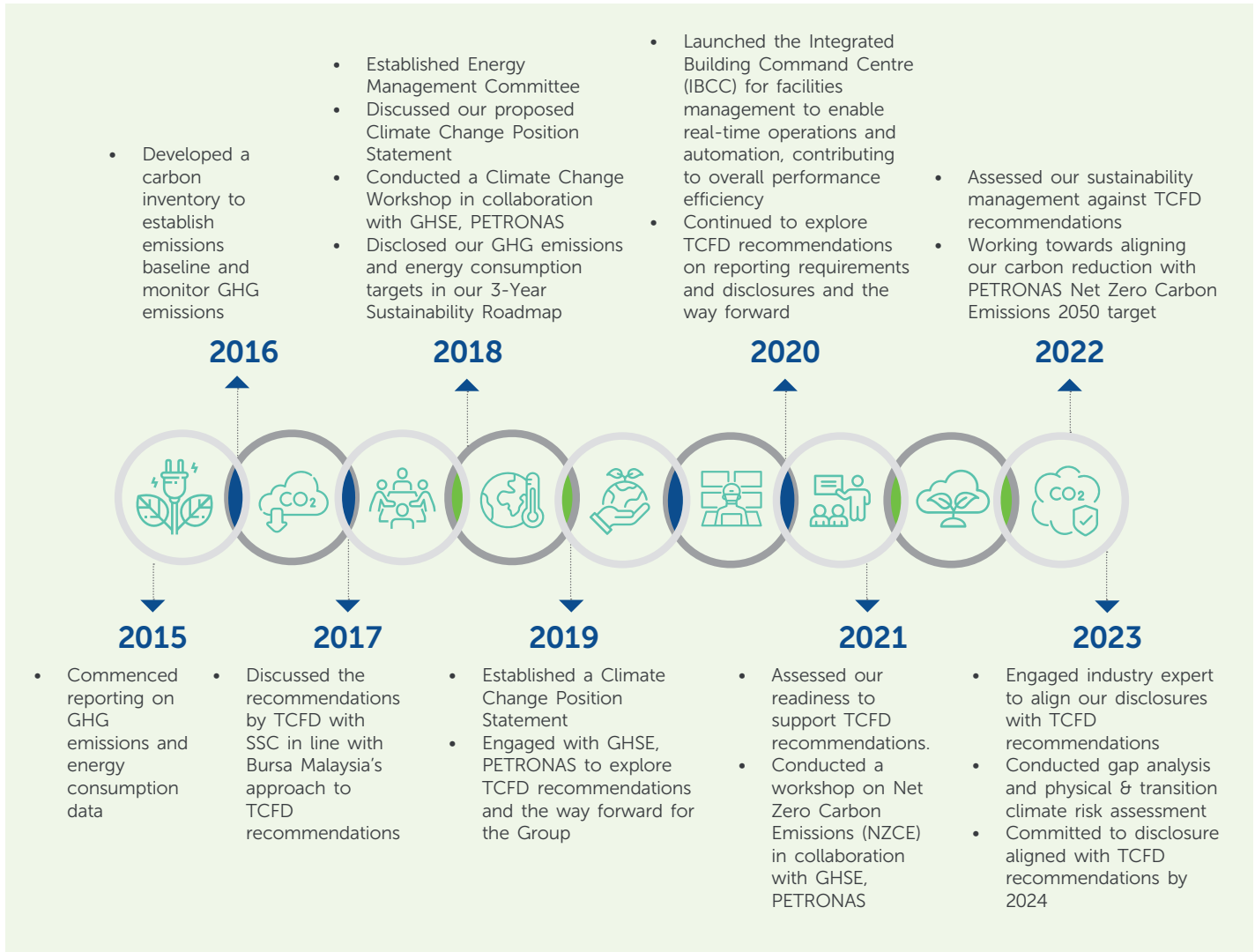
WHY IT IS IMPORTANT

The effects of climate change are becoming more evident in increasing climate events such as floods, typhoons, heat waves, forest fires and droughts, among others. These necessarily have a negative impact on communities, often damaging homes as well as livelihoods. For the KLCCP Stapled Group, climate change, which is exacerbated by carbon emissions (from energy consumption among others), has the potential to damage our assets and communities.

OUR APPROACH

We adopt a practical and measurable approach in addressing climate change and energy management, in line with market expectations. Our aim is to safeguard long-term portfolio value, mitigate environmental risks, and contribute to broader sustainability goals. Via proactive strategies, we enhance the durability of our assets and fulfil our role as a responsible corporate citizen, contributing to a more sustainable and resilient future. We seek to assure our stakeholders that we are committed to protecting the environment along with their long-term interests.

Our Climate Action Journey

2016
- Developed a carbon inventory to establish emissions baseline and monitor GHG emissions

2018
- Established Energy Management Committee
- Discussed our proposed Climate Change Position Statement
- Conducted a Climate Change Workshop in collaboration with GHSE, PETRONAS
- Disclosed our GHG emissions and energy consumption targets in our 3-Year Sustainability Roadmap

2020
- Launched the Integrated Building Command Centre (IBCC) for facilities management to enable real-time operations and automation, contributing to overall performance efficiency
- Continued to explore TCFD recommendations on reporting requirements and disclosures and the way forward

2022
- Assessed our sustainability management against TCFD recommendations
- Working towards aligning our carbon reduction with PETRONAS Net Zero Carbon Emissions 2050 target

2015
- Commenced reporting on GHG emissions and energy consumption data

2017
- Discussed the recommendations by TCFD with SSC in line with Bursa Malaysia's approach to TCFD recommendations

2019
- Established a Climate Change Position Statement
- Engaged with GHSE, PETRONAS to explore TCFD recommendations and the way forward for the Group

2021
- Assessed our readiness to support TCFD recommendations.
- Conducted a workshop on Net Zero Carbon Emissions (NZCE) in collaboration with GHSE, PETRONAS

2023
- Engaged industry expert to align our disclosures with TCFD recommendations
- Conducted gap analysis and physical & transition climate risk assessment
- Committed to disclosure aligned with TCFD recommendations by 2024

Climate Action Strategies

Our climate action journey began years ago when we recognised the importance of reducing our carbon emissions in order to halt or at least mitigate climate change. We set yearly targets for emissions reduction in the 5-year Sustainability Roadmap rolled out in 2019 and, guided by meticulously crafted strategies that consider the intricacies and specific nature of our operations, has consistently endeavoured to meet all of these. In 2022, we further strengthened our decarbonisation and climate resilience efforts by stating our goal of achieving Net Zero Carbon Emissions by 2050.

Thanks to our collaboration with PETRONAS in establishing a GHG emissions forecasting tool, we are now strategically positioned to set carbon reduction targets for each specific operation. This facilitates the development of precise decarbonisation strategies tailored to the requirements of each operation.

Our decarbonisation strategy revolves around three main aspects: reduced energy consumption, use of energy-efficient equipment, and incorporation of renewable energy. Specific initiatives implemented at each operation will align with these key aspects, adjusted to suit the unique nature of their respective businesses.

2023 in Focus [GRI 2-4, 3-3]
Planet

Carbon Emissions Accounting and Reduction

All our strategies depend on having in place a transparent emissions database and accurate monitoring systems to indicate how much carbon we are emitting, and how successful our efforts are in reducing our emissions year to year.

Our emissions measurement is guided by the Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard. Adopting the standard's organisational and operational boundaries approach, we developed our targets in the 5-year Sustainability Roadmap using 2015 as the base year.

KLCCP Stapled Group monitors emissions from all our assets and operating units, covering the following

Scope 01 — **Direct Emissions** – emissions from sources owned or controlled by the Group. These include stationary and mobile combustion as well as fugitive emissions from our facility management related operations.

Scope 02 — **Indirect Emissions** – emissions from the generation of purchased or acquired electricity, steam, heating or cooling consumed Group-wide. This originates from grid electricity and chilled water purchased by the operations.

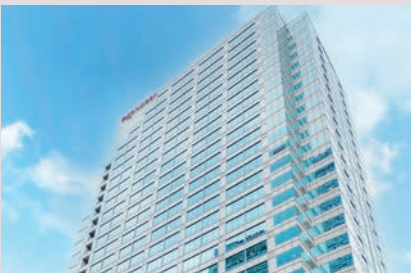**Scope 03** — **Indirect Emissions** – specifically the following categories:

Category 13 – Downstream Leased Assets – This involves indirect emissions from assets that KLCCP Stapled Group owns and leases on an operational or financial lease. As to date, the only asset under this category is the tenanted levels of Menara ExxonMobil.

Category 15 – Investment – This involves indirect emissions from assets owned and leased under a management agreement, i.e. assets under our Triple Net Lease Agreement. KLCCP SG also accounts for Scopes 1 and 2 emissions from assets under this category considering our equity in them.

Scopes 1 & 2

Suria KLCC

Scope 3 Category 13

Menara ExxonMobil

Scope 3 Category 15

PETRONAS Twin Towers

Menara 3 PETRONAS

Menara Dayabumi

Mandarin Oriental Kuala Lumpur

In 2023, we managed to achieve substantial GHG emissions reductions in line with our 5-year Sustainability Roadmap targets for each of the following segments – Office and Car Parks, Hotels and Retail. This stems from the carbon reduction initiatives implemented by each Operating Unit (OPU) as described in the key initiatives section below.

Task Force on Climate-Related Financial Disclosures (TCFD) Reporting Framework

Continuing from the initial mapping of the sustainability management approach against the four pillars of TCFD recommendations in 2022, we brought in external experts in 2023 to pinpoint gaps in our sustainability framework, approach and disclosures compared to the recommendations.

This was crucial for the integration of TCFD recommendations into our sustainability reporting, covering all pillars including climate scenario analysis and risk assessments. It also allows the experts to share best global practices with KLCCP Stapled Group, enabling us to adopt these practices and strengthen our sustainability strategy.

The Group plans to disclose full alignment of our sustainability report with TCFD recommendations in 2024.

Energy Management

Energy management is essential for our Group as we navigate ever-changing market demands in Malaysia. Implementing energy-efficient practices not only leads to cost savings but also contributes to environmental conservation. By reducing our energy consumption through sustainable energy solutions, we actively lower our carbon footprint, aligning with global initiatives for a more sustainable future.

One of the efforts undertaken has been to acquire green building certification for the iconic PETRONAS Twin Towers and Menara 3 Petronas, with the former achieving a Gold GBI rating and the latter a GBI Silver. This translates into 58% of our gross floor area being certified green.
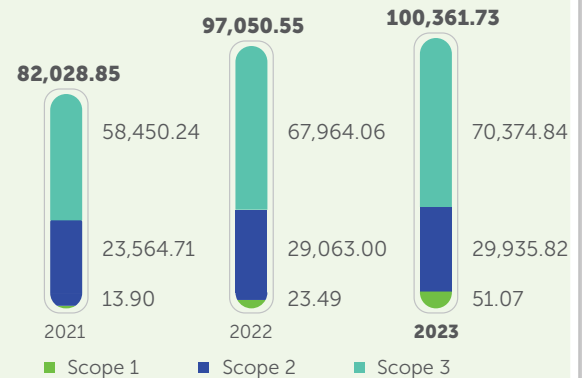
Our energy management strategy focuses on promoting responsible consumption within our operations and steering clear of unnecessary energy usage. This is achieved through administrative measures and technological upgrades, such as retrofitting facilities and equipment with low-energy alternatives. Our commitment is evident in the consistent reduction of building energy consumption and intensity from the base year of 2015. Although our energy consumption across all segments increased year on year in 2023, this was the result of significantly increased footfall and occupancy within our retail and hotel segments.

Recognising that renewable energy will be vital to reducing the Group and the country's carbon emissions, we are focusing on increasing solar energy generation in our operations.

23% absolute GHG emissions reduction from base year 2015

Absolute GHG Emissions

	2021	2022	2023
Total	82,028.85	97,050.55	100,361.73
Scope 3	58,450.24	67,964.06	70,374.84
Scope 2	23,564.71	29,063.00	29,935.82
Scope 1	13.90	23.49	51.07

■ Scope 1   ■ Scope 2   ■ Scope 3

In 2023, our overall energy consumption:

Increased by **5%** compared to 2022

Decreased by **13%** compared to base year 2015

Energy Consumption

	2021	2022	2023
Total	104,615	123,170	128,830
Office and Car Park	69,966	80,946	82,173
Retail	24,251	26,308	26,903
Hotel	10,398	15,917	19,754

■ Hotel   ■ Retail   ■ Office and Car Park
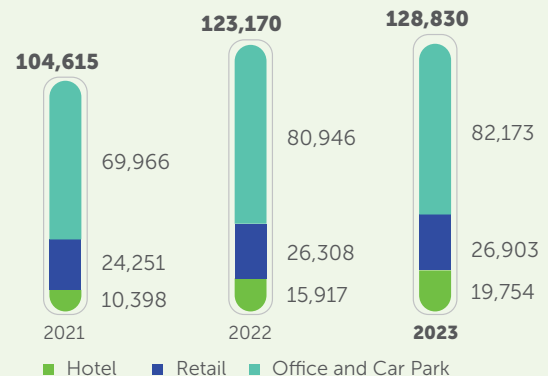
Generated **440,468** kWh of solar energy in 2023

2023 in Focus [GRI 2-4, 3-3]
Planet

KEY INITIATIVES IN 2023

Office and Car Park

PETRONAS Twin Towers

- Completion of LED light replacement in common areas and mechanical floor
- Optimisation of chilled water usage in accordance with Delta-T requirements
- Improved lighting control perimeter area operation hours

Menara Dayabumi

- Completion of chiller overhaul
- Completion of LED light replacement with motion sensor in staircase
- Optimisation of car park lighting usage
- De-lamping at KLCCUH office

Menara 3 PETRONAS

- Replacement of domestic water pump auto trans to Variable Speed Drive (VSD)

Menara ExxonMobil

Supplied and installed new Building Control System (BCS) central server and peripherals in control room; new IP-based network controller, and IP Building Automation and Control Network (BACNet) Variable Air Volume (VAV) controller, indoor BCS enclosure, portable operator, field sensors; and modified existing BCS interface in all control panels

Retail

Energy Consumption

- All lights in janitor rooms throughout the mall are switched off when not in use.
- A modernisation project for escalators that enhances safety, improves efficiency, and provides a better user experience is under way at Ramlee Mall. The project spans from Levels G to C and Levels 1 to 2. The project will also reduce future maintenance costs and enhance property value.

Hotel

Energy Consumption

- Introduction of heat pump system for hot water in guest rooms to reduce natural gas consumption.
- Upgrade of Inncom system during rooms renovation for better control of lighting and air conditioning in guestrooms.
- Shut off individual air-conditioning units in unoccupied areas.
- Switch off lights when there is low or no activity, and in non-essential areas.
- Installation of LED lights in 90% of areas that need to be lit.

KEY PERFORMANCE INDICATORS

Indicator:		2023	2022	2021
Green House Gas Emissions (tCO$_2$e)				
Scope 1 Total		**51.07**	23.49*	13.90*
– Office and Car Park		**48.93**	20.79*	11.55*
– Retail		**2.14**	2.70*	2.36*
– Hotel		**0**	0	0
Scope 2 Total		**29,935.82**	29,063.00*	23,564.71*
– Office and Car Park		**7,134.39**	6,749.08*	3,141.28*
– Retail		**22,801.43**	22,313.92*	20,423.43*
– Hotel		**0**	0	0
Scope 3 Total				
(Category 13 – Downstream Leased Assets; and Category 15 – Investments)		**70,374.84**	67,964.06*	58,450.24*
– Office and Car Park		**53,595.44**	54,008.20*	49,189.12*
– Retail		**0**	0	0
– Hotel		**16,779.40**	13,955.86*	9,261.62*
Total GHG Emissions (S1, 2 and 3)		**100,361.73**	97,050.55*	82,028.85*
Energy Management				
Total Energy Consumption (MWh)		**128,830**	123,170*	104,615*
– Office and Car Park ('000)		**82,173**	80,946	69,966*
– Retail ('000)		**26,903**	26,308*	24,251*
– Hotel ('000)		**19,754**	15,917*	10,398*
Energy Intensity (kWh/m2. yr)				
– Office and Car Park	PETRONAS Twin Towers (Tower 1)	**109**	109*	99*
	PETRONAS Twin Towers (Tower 2)	**95**	92*	82*
	Menara 3 PETRONAS	**178**	172*	136*
	Menara Dayabumi	**103**	106*	98*
	Menara Exxonmobil	**224**	214*	182*
– Retail	Suria KLCC	**183**	179*	165*
– Hotel	Mandarin Oriental, Kuala Lumpur	**219**	177*	115*
Renewable Energy				
Energy Generated from Solar (kWh)		**440,468**	415,421	470,770

* Denotes data that have been restated from previous reports due to updates post disclosure.

Map to

Stakeholders:

S1 S2 S3 S4 S5 S6

UNSDG:

3 GOOD HEALTH AND WELL-BEING | 7 AFFORDABLE AND CLEAN ENERGY | 11 SUSTAINABLE CITIES AND COMMUNITIES | 13 CLIMATE ACTION

Capitals:

NC FC

2023 in Focus [GRI 2-4, 3-3]
Planet

▶ **ENVIRONMENTAL MANAGEMENT – WATER AND WASTE MANAGEMENT**
[GRI 303-1, 303-5, 306-1, 306-2, 306-3, 306-4, 306-5]

WHY IT IS IMPORTANT

Our commitment to environmental management goes beyond strategy; it is a profound recognition of our role in building a sustainable future. Through conscientious eco-friendly practices, we actively reduce our ecological footprint, positioning our properties as symbols of modernity and environmental responsibility. Engaging tenants in environmentally conscious practices empowers individuals to contribute actively to global environmental preservation. Our commitment to improving the environmental quality of surrounding communities reflects a deep-seated belief that our actions today shape tomorrow's world. In summary, our environmental management strategy serves as a testament to our dedication to creating a sustainable and responsible future.

OUR APPROACH

In our ongoing commitment to safeguard the environment, we address the critical aspects of water and waste management. Our focus lies in actively reducing consumption trends, recognising the pivotal role this plays in enhancing sustainability. Through strategic measures, we are making strides to minimise water usage and optimise waste management practices. This not only aligns with environmental responsibility but also underscores our dedication to being a positive force for sustainability in Malaysia.

Water Management

Water consumed in our office buildings, retail malls and hotel facilities comprises municipal water. We continually look for ways that the Group, including our stakeholders, can improve our water efficiency. This includes the installation of water-efficient systems and adoption of non-wasteful behaviours. Water consumption increased in 2023 compared to the previous year because of the increase in business activities, signified by the rise in footfall and occupancy rates. Nonetheless, our consumption was 16% less than our 2015 base year. We have also installed appropriate controls to ensure all our operations do not contribute to any form of water pollution.

Waste Management

Minimising GHG emissions associated with landfill operations is key to our waste management. By reducing unnecessary waste generation and diverting waste away from landfills, we actively contribute to a low-carbon environment.

Our waste management processes align with the Solid Waste and Public Cleansing Management Act 2007 and other relevant regulatory standards. Most of our non-hazardous waste originates from building operations and food establishments. Such waste is diverted from landfills through effective reduce, reuse, recycling and composting initiatives. In 2019, we introduced a Single Use Plastic (SUP) phase-out initiative, as well as a collaborative waste recycling and recovery programme for items such as paper, fabric and used cooking oil (UCO).

Our hazardous waste management adheres to the Environmental Quality (Scheduled Waste) Regulations 2005, and involves the proper disposal of items such as light bulbs and electronic waste.

Through responsible waste management, we aim to foster a sustainable environment that benefits both our business and the community.

KEY INITIATIVES IN 2023

Group

Used Cooking Oil (UCO) Recovery Drive

This programme educates employees and tenants about the crucial role of UCO as a bio-feedstock for bio-refinery, highlighting its potential contribution to our sustainability agenda. Collaborative efforts between KLCCP, PETRONAS and Capital Oil led to a series of UCO collection events from July to December 2023. A total of 692.87 kg of UCO was collected from the recovery drive.

Fabric Recycling Drive

Out of the **13.9 million tonnes** of total waste generated in **Malaysia** in 2021, **3.1%** or **432,901 tonnes** were fabric waste.
(Compendium SWCorp, 2022)

Fast fashion has become a popular trend, generating a significant amount of fabric waste. In our commitment to fostering a more sustainable nation, we are creating awareness as well as offering a means for our employees, tenants and the community to recycle their unwanted fabrics, diverting it from the landfill.

In collaboration with POS Malaysia, MISC and Lifeline Clothing (LLC) Malaysia, we have installed a fabric recycling bin in Menara Dayabumi, which is accessible to all stakeholders mentioned. This initiative aligns with the KLCCP Sustainability Framework, supporting UNSDG 11 – Sustainable Cities and Communities, and UNSDG 12 – Sustainable Consumption and Production.

Office

Phasing Out Single Use Plastics (SUPs)

- Cleared out existing stock of plastic PET bottles
- Replaced plastic food containers with new food packaging upon success of pilot programme
- Provided new vending machines with enhanced flavours along with "use your own cup feature", replacing paper cups
- Procured 12,000 glasses and 570 jugs for meeting rooms and conference floors
- Modified labelling on recycling bins to create greater tenant awareness and avoid confusion
- Verified list of external caterers and F&B suppliers in Suria KLCC & Avenue K to ensure both food hygiene and eco-friendly food packaging

Approved & Verified Food Outlets
(Suria KLCC & Avenue K)
1st Review: **83 outlets**
2nd Review: **60 outlets**

Collaborative Efforts with PETRONAS

3R Recycling Program as part of Phasing Out Single Use Plastics (SUPs)

KLCCUH worked with PETRONAS Trading Corporation Sdn Bhd (PETCO) at PETRONAS Twin Towers to eliminate the use of plastics and enforce collection and segregation of plastic waste for recycling.

Paper Recycling Drive

We collaborated with PETRONAS Downstream Business Excellence (DBE) in its effort to collect wastepaper at its office in PETRONAS Twin Towers.

Phase Out of SUPs in Sembang Petang

We shared insights on phasing out SUPs with stakeholders at "SUPs Sembang Petang" events organised by PETRONAS, led by the Executive Director of KLCCUH, Dato Ts. Izwan Hasli.

Do you know what's SUP?

There's been much talk about SUP lately. No, not "sup" as in the Bahasa Malaysia word for "soup" but instead the single-use plastic containers they might be served in.

So what's the big deal about SUP? Why should we stop using them? What are we doing about them? What should we use instead?

These questions and more will be answered at our next *Sembang Petang*.
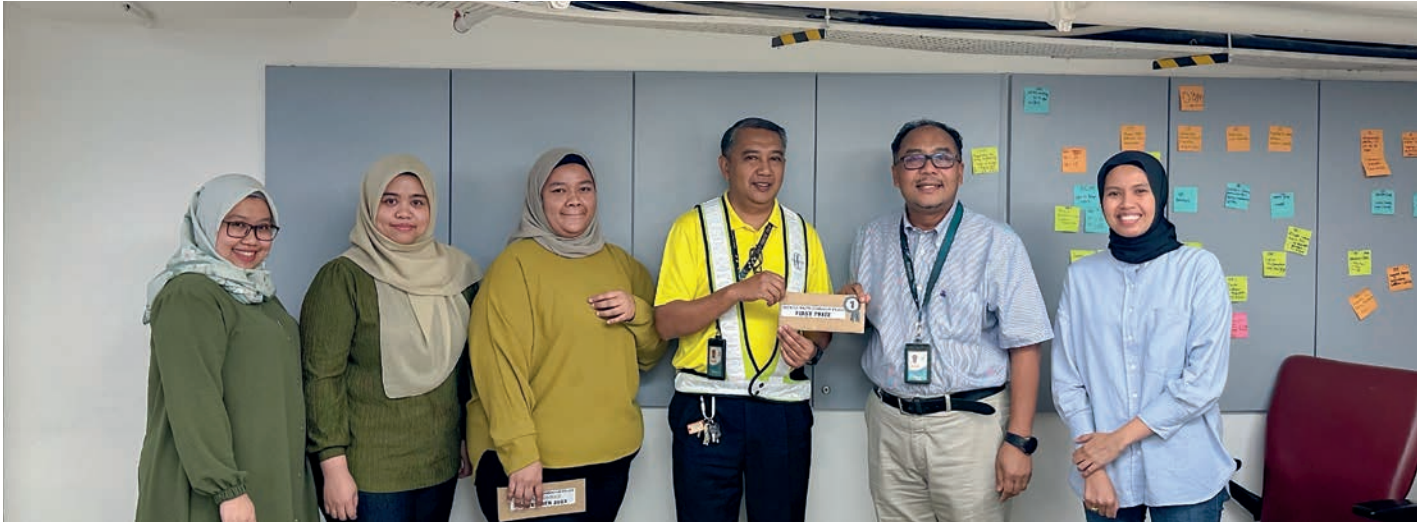
JOIN US!
TUESDAY OCTOBER 3, 2023
2.30-4.00pm
via MS Teams Live Event & PETRONAS DOT
(links will be active from 2:15pm)

CLICK HERE TO JOIN VIA MS TEAMS LIVE EVENT

Sembang Petang
You've got challenges. We've got solutions.

2023 in Focus [GRI 2-4, 3-3]
Planet

Car Park

KPM Recycle Waste Campaign FY2023

The KPM Recycle Waste Campaign FY2023 reflects our acknowledgement of the importance of waste management in reducing operational costs and our environmental footprint, while enhancing our reputation and stakeholders' trust. Throughout the year-long campaign, various programmes were organised to foster greater environmental awareness among our staff.

Retail	

Initiative	Details
Water Usage	• Rectify leaking pipes by promptly repairing or replacing the faulty sections. • Collaborate closely with tenants to promote responsible water usage practices.
Waste Generation	• Encourage mall food & beverage (F&B) tenants to segregate food waste into recycling and non-recycling bins, thereby boosting landfill diversion efforts. • Facilitate CEPSWAM competent persons' understanding of the Scheduled waste management process and ensure legal compliance with EQ (Scheduled Waste) Regulations 2005 via cross audits involving Suria KLCC.

Hotel	

Initiative	Details
Water Usage	• Installation of water filters at Basement 4 of the Hotel has clarified water used in flushing in guestrooms resulting in reduced water consumption.
Waste Generation	• Waste separation at source with different bins for recyclables, non-recyclables and food waste. • 100% removal of single-use plastic in hotel operations. • Annual waste management training for colleagues to reinforce proper waste management behaviour at MOKUL Hotel.

KEY PERFORMANCE INDICATORS

Indicator:		2023	2022	2021
Water Management [1]				
Water Consumption (m3)	Office	**570,412**	490,248	311,244
	Retail	**475,653**	422,417	303,806
	Hotel	**175,281**	150,153	78,228
	Total water consumption	**1,221,346**	1,062,818	693,278
Water Intensity (m3 per sqm of gross floor area)	Office	**0.49**	0.42*	0.27*
	Retail	**3.31**	2.94*	2.12*
	Hotel	**1.61**	1.38*	0.72*
	Office	**0.45**	0.42*	0.27*
Non-Hazardous Waste Management				
Waste Generated (MT)	Office and Car Park	1,371	830	232
	Retail	4,066	3,291	1,879
	Hotel	954	647*	774*
	Total waste generated	6,392	4,768	2,885*
Waste Disposed (MT)	Office and Car Park	1,331	823	223
	Retail	3,560	2,947	1,672
	Hotel	659	311	99
	Total waste disposed	5,550	4,081	1,994
Percentage Waste Diverted from Landfill (MT)	Office and Car Park	3%	1%	4%
	Retail	12%	10%	11%
	Hotel	31%	52%	64%
Hazardous Waste Management				
Waste Generated (MT)	Office and Car Park	1.23	1.69	2.79
	Retail	0.32	0.29	0.36
	Hotel	1.05	1.39	0.36
	Total waste generated	2.60	3.37	3.51
Waste Disposed (MT)	Office and Car Park	1.46	1.18	0.49
	Retail	0	0	0.36
	Hotel	1.05	1.41	0.32
	Total waste disposed	2.51	2.59	1.17

[1] Water intensity data restated due to change of denominator from Net Floor Area in prior reporting to Gross Floor Area in 2023.
* Denotes data that has been restated from prior reports due to updates post disclosure.

Map to

Stakeholders:
S1 S2 S3 S4 S5 S6

UNSDG:

Capitals:
NC FC