



**HIGH LEVEL
TALKS ON ZERO
CARBON CITY
KUALA LUMPUR**
Developing An
Institutional Framework
Towards Kuala Lumpur
Zero Carbon City And
Neighbourhood In
Collaboration With
Tokyo Metropolitan
Government And
Saitama City

**Kuala Lumpur
Towards a Carbon
Neutral City by
2050**

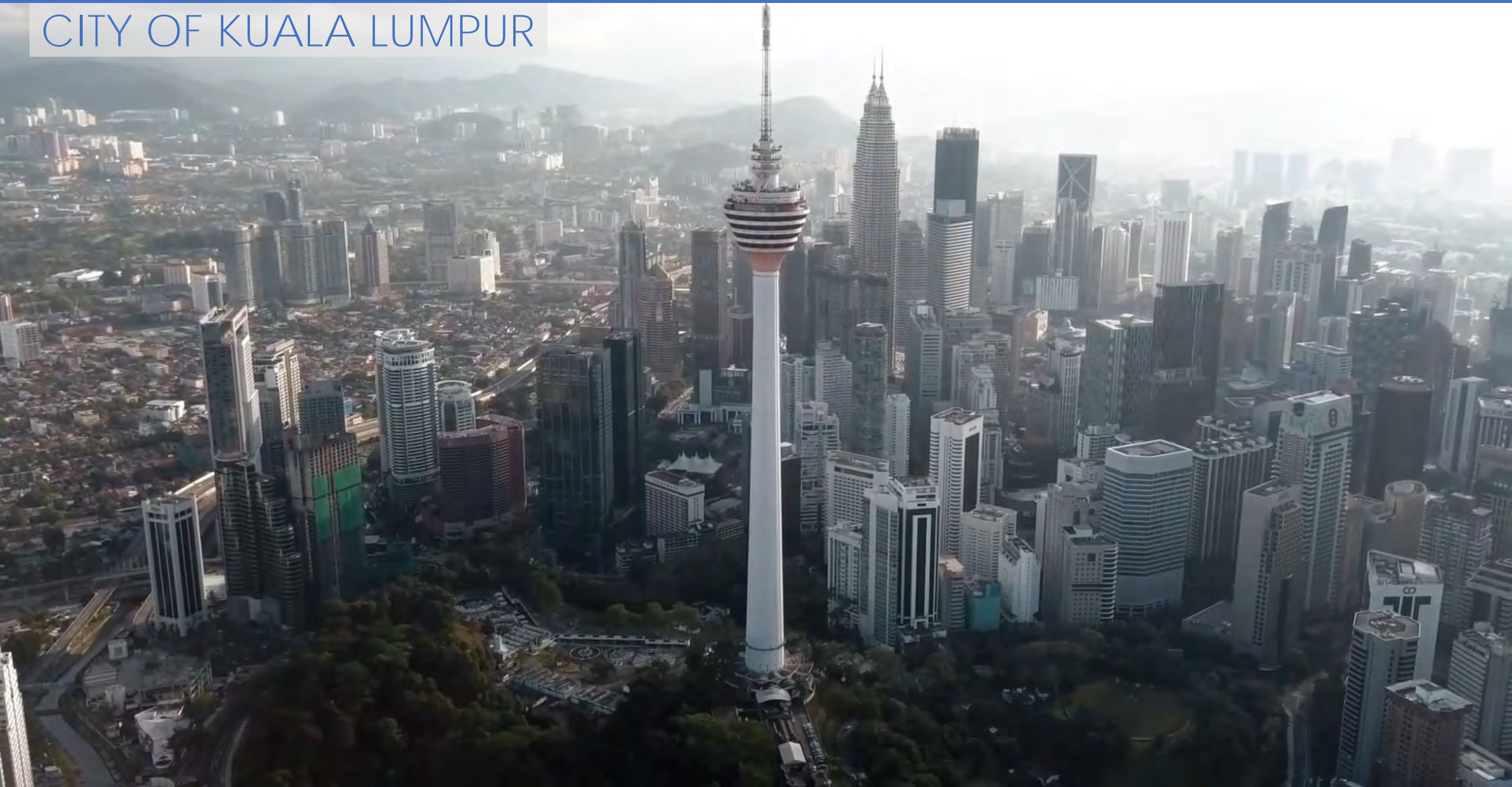


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(Architect)
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CITY OF KUALA LUMPUR





KUALA LUMPUR'S PARTICIPATION IN COP26



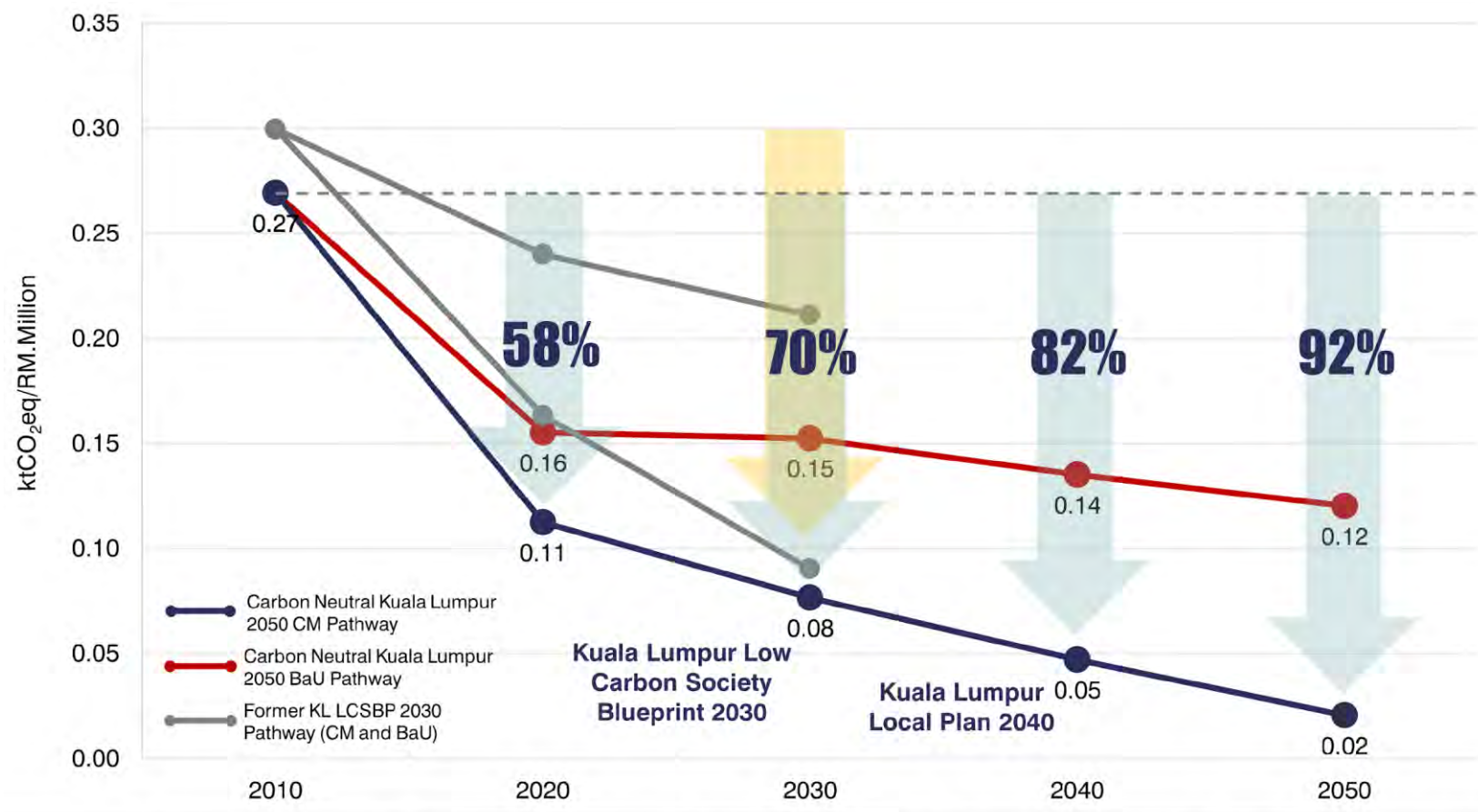
01-12 NOV 2021
GLASGOW
COP26
IN PARTNERSHIP WITH ITALY





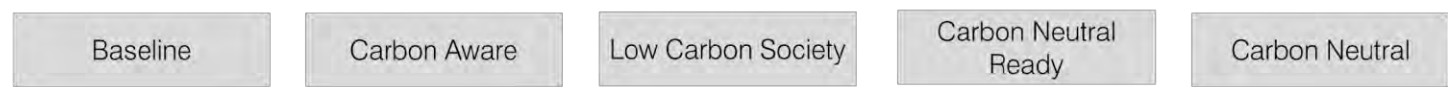
CARBON NEUTRAL KUALA LUMPUR BY 2050

Carbon Neutral Kuala Lumpur 2050 Scenario Pathway



Kuala Lumpur
City Hall (KLCH)

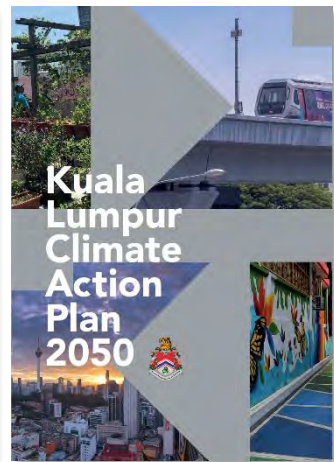
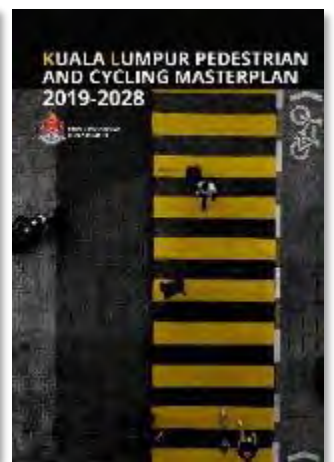
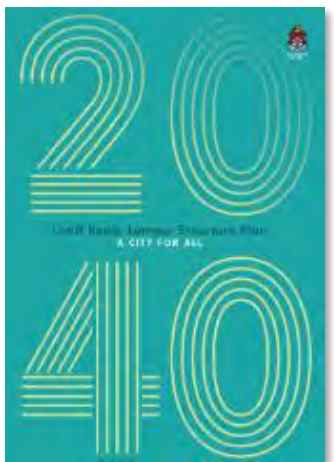
Kuala Lumpur aims to become
Carbon Neutral Kuala Lumpur
by
2050



Source: UTM-LCARC Projections



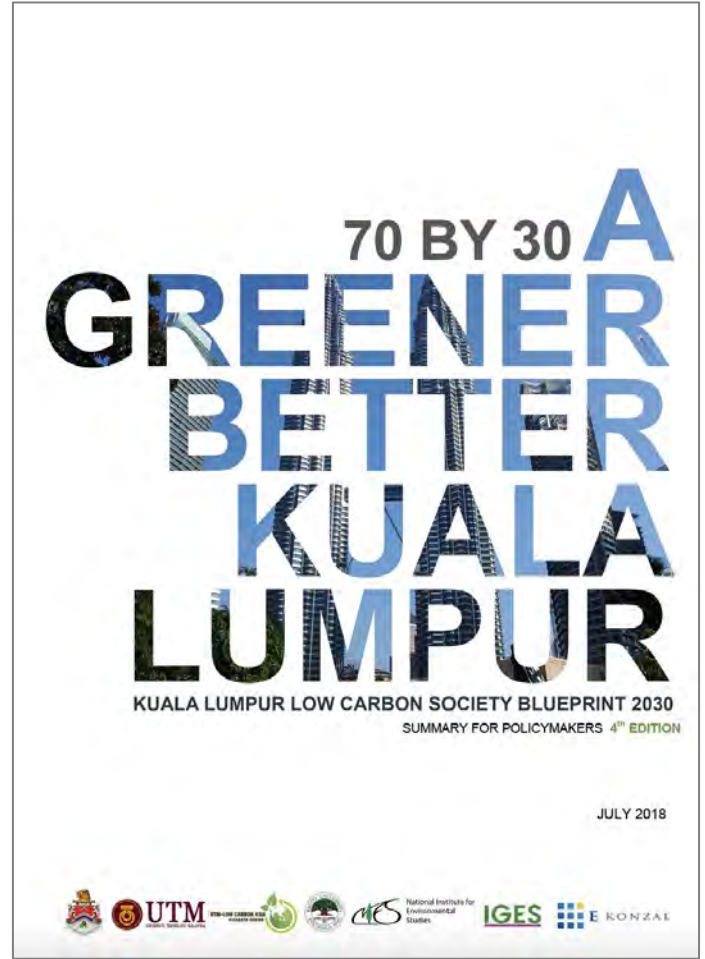
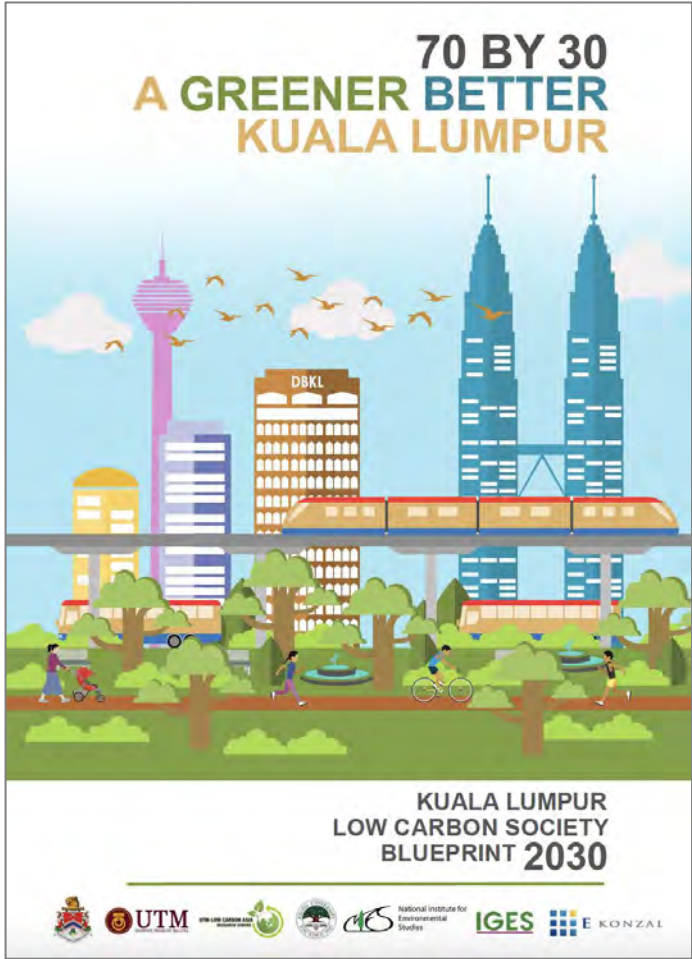
THE MASTER PLANS



Kuala Lumpur's Transition To Carbon Neutral City 2050

The Master Plans and Blueprints are in line with the Sustainable Development Goals in light of KL-ites' aspirations.

LOW CARBON SOCIETY BLUEPRINT 2030



Current Vision KLSP 2020 Draft KLCP 2020	WORLD CLASS CITY 2020		
LCS Vision for Kuala Lumpur	WORLD CLASS SUSTAINABLE CITY 2030 70 by 30: A Greener Better Kuala Lumpur		
Triple Bottom line of sustainability	Economy	Social	Environment
Thrusts	Thrust 1 Prosperous, Robust and Globally Competitive Economy	Thrust 2 Healthy, Creative Knowledgeable and Inclusive Community	Thrust 3 Ecologically Friendly Liveable and Resilient Built Environment
Sustainable Development Goals 2030	Goals: 1, 2, 7, 8, 9, 11, 12, 13, 17	Goals: 3, 4, 5, 10, 11, 12, 13, 16, 17	Goals: 6, 11, 13, 14, 15, 17
New Urban Agenda Transformative Commitments	Sustainable and Inclusive urban prosperity and opportunities for all	Sustainable urban development for social inclusion and ending poverty	Environmentally sustainable and resilient urban development
Key Principles Draft KL City Plan 2020	World-class Business Environment	World-class Working Environment	World-class Living Environment
KL Low Carbon Society Actions	World-class Governance		
	Green Growth	Community Engagement and Green Lifestyle	Low Carbon Green Buildings
	Energy Efficient Spatial Planning		Green and Blue Network
	Green Mobility	Sustainable Energy System	Sustainable Waste Management
Sustainable Energy System	Sustainable Water and Wastewater Management		
	Green Urban Governance		



LOW CARBON SOCIETY BLUEPRINT 2030

70 BY 30 A GREENER BETTER KUALA LUMPUR





PARTNERS & COLLABORATORS

NATIONAL



INTERNATIONAL





LOW CARBON INITIATIVE FOR KLCH'S BUILDINGS

TOKYO TO KUALA LUMPUR
LOW CARBON SYSTEM
 (T2KLLCS)

- KLCH has collaborated with **TMG, IGES, UTM** and **SEDA Malaysia** since 2019.
- Now the collaboration has entered **Phase 4**
- New collaboration partner is **Saitama City**.



KLCH TOWER 1, 2, 3, and IDB

- Pilot Projects - EE
- Power Consumption
- Air-condition Equipment
- Kuala Lumpur Low Carbon Target

DATA ON 4 MAIN KUALA LUMPUR CITY HALL BUILDINGS

KLCH Buildings	GFA (sq.m) NFA (sq.m)	Air Conditions Area (sq.m)	BEI (kWh/sq.m/year)	Space Cooling Equipment (year installed)	No. of Elevators (year installed)	No. of Pumps (year installed)	No. of Chillers (year installed)	Chiller status	Other equipment
KLCH1	245,306.88 / 237,947.67	23,041.54	180	30 unit AHU 1998 30 unit FCU 1998 6 unit WCPU 1998 ACPU 1998	7 / 2009	4 unit domestic water pump 1998 22 unit chilled and condenser water pump 1998 & 2019 7 set sprinkler, wet riser and hose reel pump 1998	550 RT durham bush 2019 550 RT durham bush 2019 155 RT durham bush 2019 15SRT Trane 1998 15SRT durham bush 1998	3 unit Chiller (2019) Ground Floor (2019) 2 unit Chiller Auditorium (1998)	5 unit cooling tower (2019) 2 unit cooling tower (1998)
KLCH 2	51,949.06 / 50,390.58	4,351.60	72	16 unit AHU 2010 & 2018 3 unit WCPU 2010	7 / 2010	2 unit domestic water pump 2010 16 unit chilled and condenser water pump 2010 2 set sprinkler 2010	2 unit York 600RT (2018) 2 unit York 150RT (2019)	Chiller Ground Floor (2018) Chiller level 12 (2018) Chiller (2010)	8 unit cooling tower (2018)
KLCH 3	50,563.20 / 49,046.30	48,035.20	101	42 unit AHU 1999 19 unit FCU 1999 28 unit CFCU 1998	9 / 2009	2 unit domestic water pump 1999 2 unit chilled 75hp & 2 unit condenser water pump 100hp 1999 4 set sprinkler, 2 set wet riser and 1 set hose reel pump 1999	2 unit 675 RT York 1999	2 unit Chiller (1999)	2 unit cooling tower (1999)
KLCH TRAINING CENTER (IDB)	64,141.98 / 62,218	40,934.86	23	3 unit AHU 2009 2.5 unit FCU 2009	7 / 2009	5 unit domestic water pump 5hp 2009 2 unit chilled 15hp & 2 unit 15 hp condenser water pump 2009 1 set sprinkler and 1 set hose reel pump 2009	2 unit 150 RT York 999	Office & training centre using VRV system (2009) Chiller for Meistika Hall (2009)	2 unit cooling tower (2009)



KLCH TOWER 2

KLCH TOWER 3

KLCH TOWER 1

LOW CARBON INITIATIVE FOR KLCH'S BUILDINGS

PROJECT PROPOSAL FOR ENERGY EFFICIENCY (EE)

KLCH TOWER 1

- AHU Menara 1
- Replacement Of 7 Lift Units At KLCH Tower 1
- Menara 1-Auditorium -Chiller, Pump, Cooling Tower & AHU
- Upgrading The Electrical Wiring System At Menara KLCH 1

KLCH TOWER 2

- Elevator Replacement At Menara DBKL 2
- Upgrading the electrical wiring system at Menara KLCH 2

KLCH TOWER 3

- Replacement And Upgrade Of Chiller And Cold & Chilled Water Pump To Energy Efficiency Type At Menara KLCH 3
- Upgrading And Replacement Of KLCH Tower 3 Main Pipeline System
- Upgrading The Electrical Wiring System At DBKL Towers 3

BIL	PROJECT PROPOSAL	PROPOSED YEAR IMPLEMENTATION	PROJECT STATUS	BUDGET STATUS	STATUS UPDATE
B M&E PROJECT					
1	AHU FOR KLCH TOWER 1	2022	TENDER PROCESS	- TENDER PROCESS IN PROCUREMENT SEPT/OCT IMPLEMENT NOV 2021- JKME SO- ADDITIONAL BUDGET RM4,000,000.00 (HAS PASSED DEVELOPMENT COMMITTEE) FOR 2022/2023-KICK-OFF NOV/DEC 2021	Tendering process (tender board meeting)
2	VRV FOR AIR-CONDITIONING SYSTEM, IDB BANDAR TUN RAZAK	2022	TENDER PROCESS	- ACQUISITION SEPT/OCT - IMPLEMENT NOV 2021- KICK-OFF RUN NOV/DEC 2021- ADDITIONAL BUDGET RM1,400,000.00 (DEVELOPMENT COMMITTEE, AWAITING APPROVAL)- UPB SO	Tendering process (need to amend according to new QS format)
3	REPLACEMENT AND UPGRADE OF CHILLER AND COLD & CHILLED WATER PUMP TO ENERGY EFFICIENCY TYPE AT MENARA DBKL 3- STANDARD MS1525- JAPAN SIDE SUGGESTION FOR BE BETTER IF AVAILABLE	2022/2023	TO APPLY BUDGET 2022- JM HAFIZ TO GET CURRENT SPECT	TO APPLY YEAR 2022-KICK-OFF NOV/DEC 2022- DOCUMENT/SPECT PREPARATION	expected to kick off in december 2022
4	ELEVATOR REPLACEMENT AT MENARA KLCH 2	2025			
5	Replacement of 7 lift units at KLCH Tower 1	2021-2023	IN PROGRESS - JAN 2023 TO COMPLETE - 12-13 YEARS LIFT - PROPOSE TO SUB-METER/SMART METER FOR NEW LIFT - CALCULATION BEFORE AND AFTER IN BEDOS	- 10% PAYMENT PROCESS	in process (30% as in May)
6	DBKL TOWER 1 - Auditorium -Chiller, Pump, Cooling Tower & AHU	2021/2022	READY FOR BOARD MEETING	- TO CONFIRM WITH SO	Work in progress
7	UPGRADING AND REPLACEMENT OF DBKL TOWER MAIN PIPELINE SYSTEM 3	2022			Work in progress



Features : OUTDOORS Garden
 Function : BUILDING Cooling Mechanism, LED....
 Estimated Cost Saving 2022 : RM 66,000/month
 Cost Saving since 2016: RM804,695
 CO2 Saving since 2016: 1,182,302 kgCO2

WANGSA MAJU CARBON NEUTRAL GROWTH CENTRE



Floating Solar PV on lakes



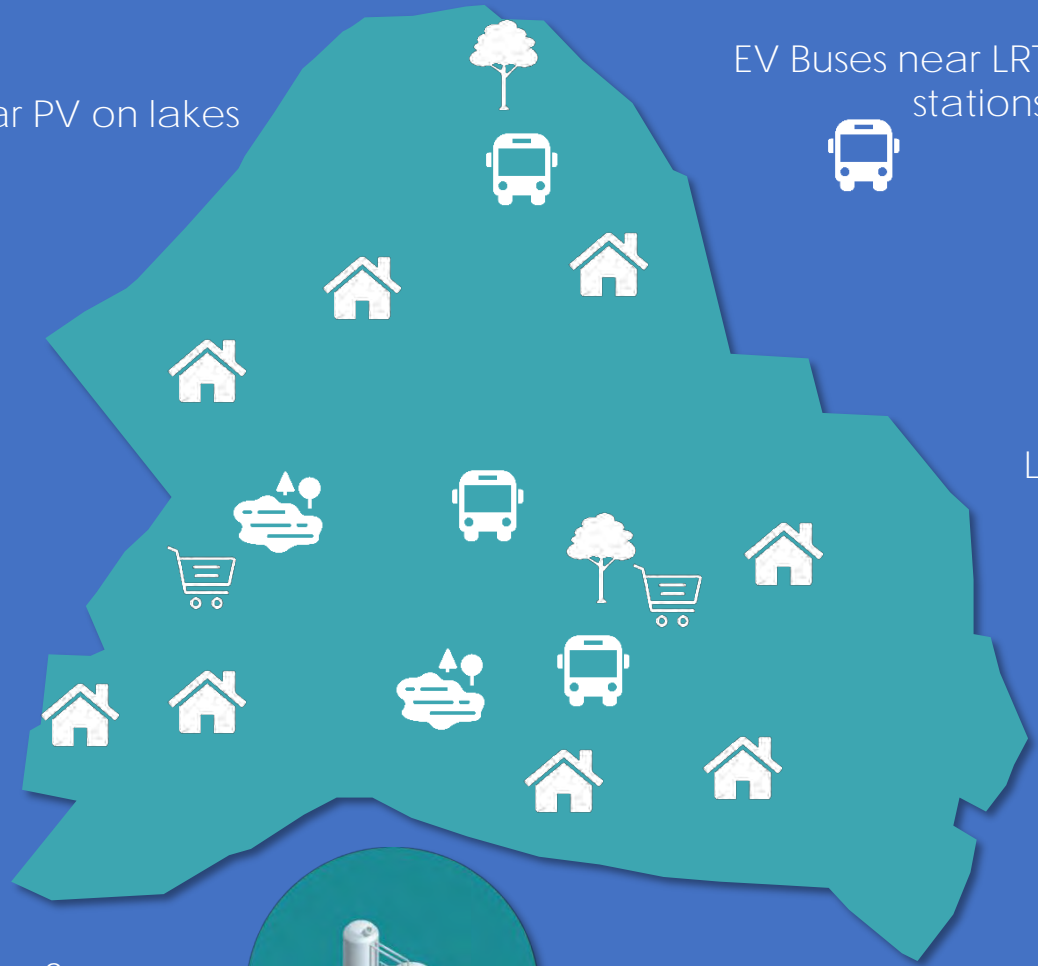
Solar PV Installation on house/malls rooftop



Green Spaces



Anaerobic Digester and Pyrolysis Plant



EV Buses near LRT stations



LCS Education



Walkable and cycleable Neighbourhood



SUSTAINABLE DEVELOPMENT GOALS



SDG CENTRE KUALA LUMPUR

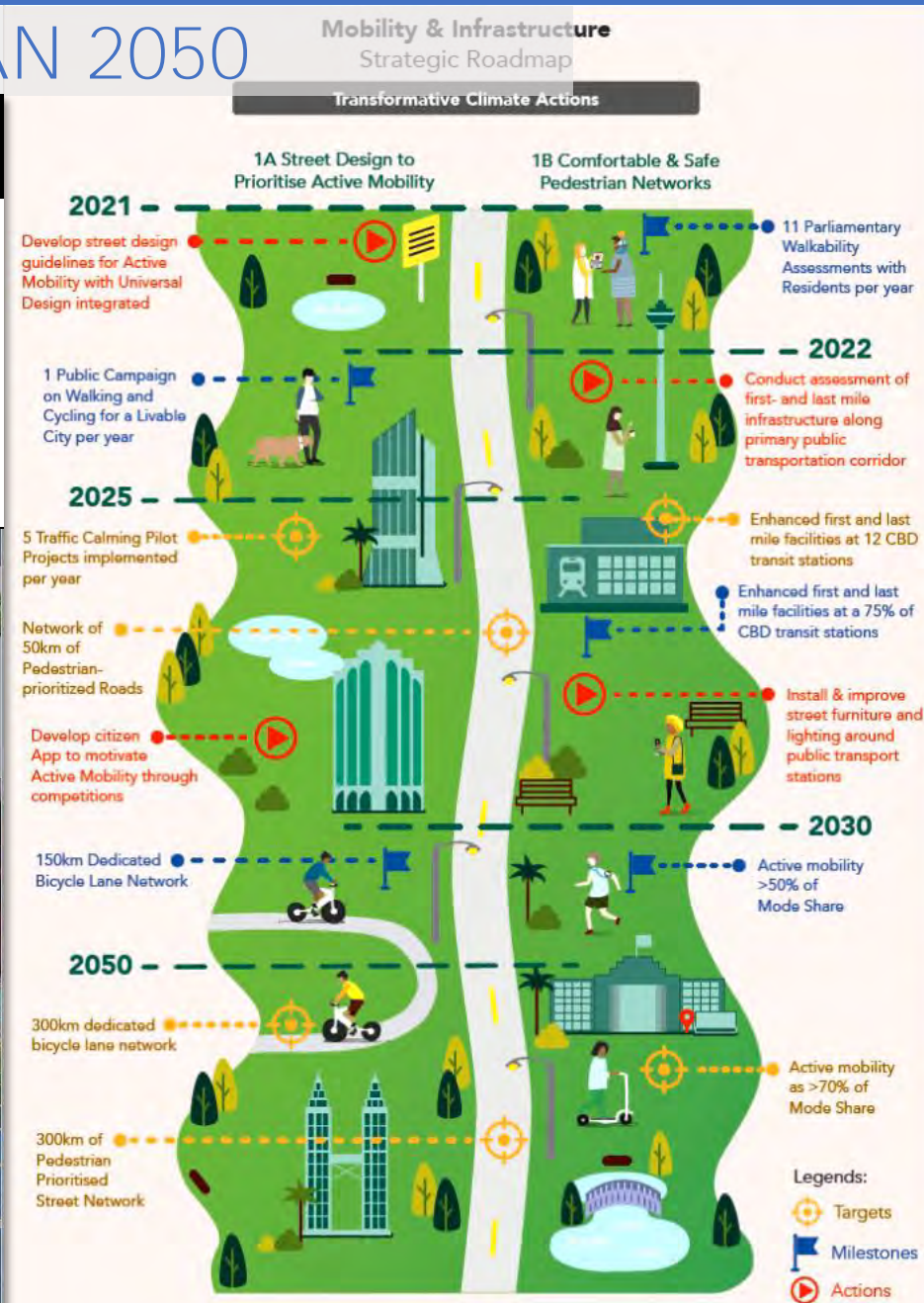


KL CLIMATE ACTION PLAN 2050

C40 CITIES

SCAN ME

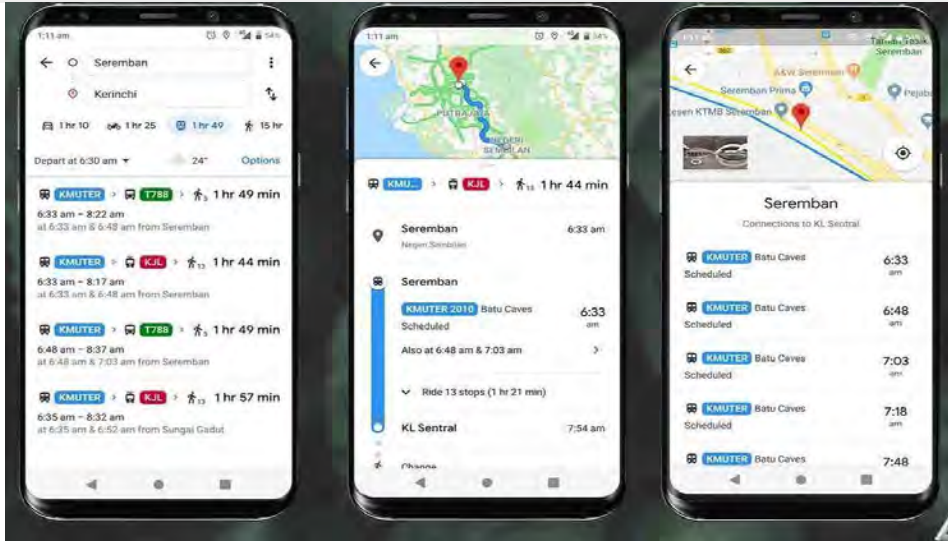
Kuala Lumpur Climate Action Plan 2050



KL CAR FREE MORNING



GoKL ELECTRIC BUS



GoKL ELECTRIC BUS



KUALA LUMPUR SOLAR PV AND RENEWABLE ENERGY

Regulation for real estate developers to utilise at least 30% of Renewable



DUKE-Plaza Toll



IKEA Cheras



KLCC



UTM-Semarak



AEON-Wangsa Maju



KEN Tower-TTDI

VISIBILITY IS KEY

KUALA LUMPUR CITY HALL-LOW CARBON INITIATIVES (Solar PV)



PV Street Lights-Sungai Bunus



Pasar Keramat-KLCH



PV Street Lights-Bukit Jalil



RE: Vertical Axis Turbine-Zero Energy Kiosk



Pasar Harian Selayang-KLCH

video credit : -SOLAR

THANK YOU
TERIMA KASIH
ありがとうございました

