

# LOW CARBON CITIES FRAMEWORK (LCCF)

## Low Carbon Cities 2030 Challenge (LCC2030C) Introduction

Local Authorities, Universities, Developers & Partners

July 2024



# LATAR BELAKANG MALAYSIAN GREEN TECHNOLOGY AND CLIMATE CHANGE CORPORATION (MGTC)



KEMENTERIAN SUMBER ASLI  
DAN KELESTARIAN ALAM

MGTC merupakan sebuah agensi di bawah **Kementerian Sumber Asli dan Kelestarian Alam (NRES)** yang diberi mandat untuk mempercepatkan **pertumbuhan hijau**, memperkasakan **tindakan iklim** dan memupuk **gaya hidup hijau**.

Tiga dasar kebangsaan yang berkaitan peranan MGTC dalam memangkin pertumbuhan hijau negara adalah **Dasar Teknologi Hijau Negara (NGTP)**, **Dasar Perubahan Iklim Negara (NCCP)** dan **Pelan Induk Teknologi Hijau (GTMP)**.

Matlamat utama MGTC adalah untuk **merealisasikan sasaran Malaysia untuk menjadi negara karbon sifar bersih seawal tahun 2050** melalui pengurangan pelepasan gas rumah kaca sebanyak **45%** pada tahun 2030 berbanding tahun 2005, meningkatkan jumlah **Keluaran Dalam Negara Kasar (KDNK)** dalam sektor teknologi hijau sebanyak **RM100 billion**, dan menjana **230,000** peluang pekerjaan hijau.





# LOW CARBON CITIES FRAMEWORK (LCCF)



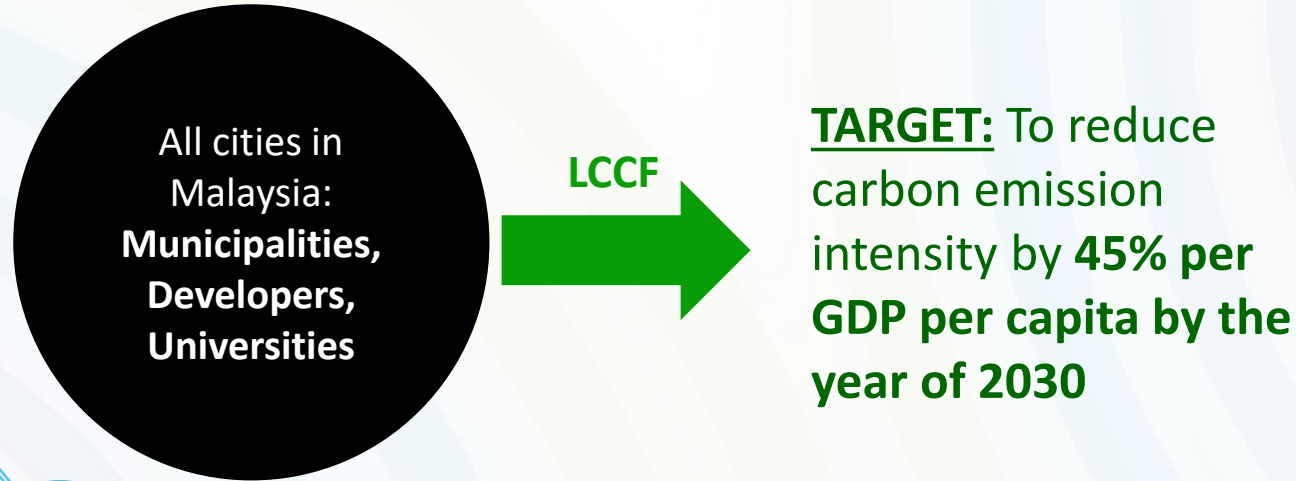


## DEFINITION: LOW CARBON CITY

- A Low Carbon City is a city **that implement low carbon strategies** to meet its environmental, social and economic needs.
- The city **measures, manages and mitigates** its carbon emissions to reduce its contribution to climate change.



TO GUIDE STAKEHOLDERS TO LEAD BY EXAMPLE & IMPLEMENT LOW CARBON CITIES EFFORT



## OBJECTIVE



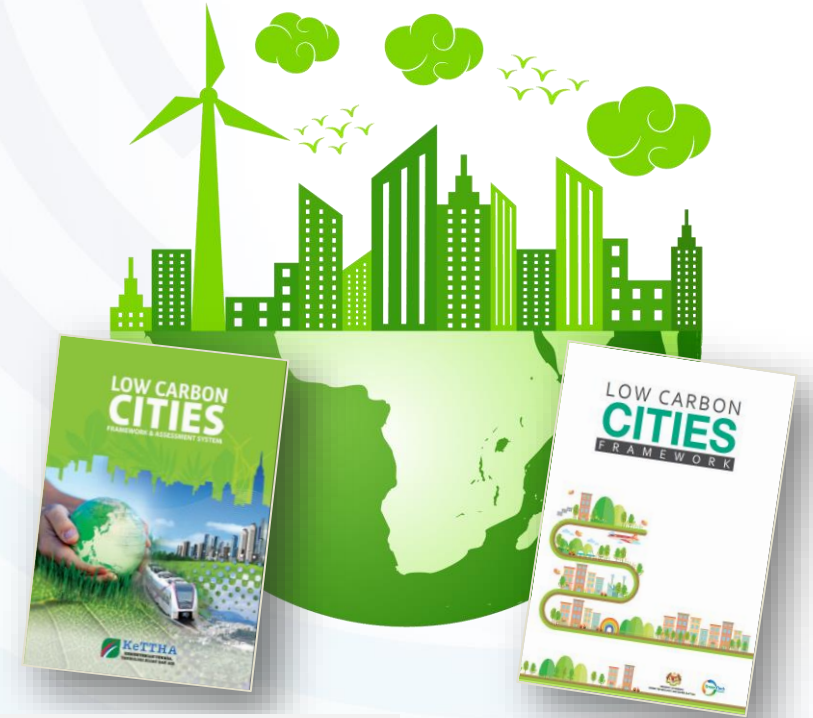
To encourage & promote the concept of low carbon cities and townships in Malaysia.



To increase the compatibility of cities/townships with their local natural system.



To guide cities in making choice/decisions towards greener solutions.



LCCF Version 1 launched :  
8 September 2011

LCCF Version 2 released  
October 2017



# HOW DOES THE LOW CARBON CITY LOOKS LIKE?



Renewable Energy for decentralise energy generation



Solar Township/ Buildings



Energy Efficient/ Low Carbon Buildings



Energy & Water consumption reduction



Reduction of Municipal Waste



Transit Oriented Development – reachable by walking and cycling



Lesser/ negligible traffic congestion

## Positioning Malaysia in the forefront of low carbon cities development



Electric Vehicles/ Energy Efficient Vehicles



Urban Environment



Urban Transportation



Urban Infrastructure



Building



Efficient & Effective Mass Public Transport



More Green Spaces & Green Connectors



Plant more high sequestration trees



Low carbon emission



Improve standard of living



Government effort is visible & motivates people to value the Environment



Malaysia's Inspiration



Catalyst of Change and Inspiration to other cities and communities

**4** Elements for GHG Reductions in Cities

**15** Performance Criteria\*

**41** Sub-Criteria

\* Performance Criteria are **measurable strategies** to **reduce carbon emission** through:-

Policy control, technological development, better process & product management, change in procurement system, carbon capture, consumption strategies & others.

## Urban Environment

**UE**

- Site Selection
- Urban Form
- Urban Greenery & Air Quality



## Buildings

**B**

- Low Carbon Building
- Community Service



## LOW CARBON CITIES FRAMEWORK AND ASSESSMENT SYSTEM

**UI**

- Infrastructure Provision
- Waste
- Energy
- Water Management



**UT**

- Reduction Use of Private Motorised Transport on Urban Road
- Increase in Public Transport
- Mode Shift from Private to Public Transport and Non-Motorised Transport
- Use of Low Carbon Transport
- Improvement to Level of Service of Road Links and Junctions
- Utilisation of Transit-Oriented-Development (TOD) Approach



## Urban Infrastructure

## Urban Transportation



# 41 LOW CARBON CITIES PERFORMANCE CRITERIA

## URBAN ENVIRONMENT

Development within defined urban footprint : 1-1

Infill development : 1-2

Development projects within transit nodes and corridor : 1-3

Brownfield and Grey field redevelopment : 1-4

Hill slope development : 1-5

Mixed-use development : 2-1

Compact development : 2-2

Road and parking : 2-3

Comprehensive pedestrian network : 2-4

Comprehensive cycling network : 2-5

Urban Heat Island (UHI) effects : 2-6

Preserve natural ecology, water body and bio-diversity : 3-1

Green open space : 3-2

Number of trees : 3-3

## URBAN INFRASTRUCTURE

Land take for infrastructure and utility services : 1-1

Earthworks management : 1-2

Urban storm water management : 1-3

Construction waste management : 2-1

Industrial waste management : 2-2

Household solid waste management : 2-3

Energy consumption : 3-1

Renewable Energy : 3-2

Site wide district cooling system : 3-3

Efficient Water Management : 4-1

ENERGY

MOBILITY

WATER

WASTE

GREENERY

5 Direct  
Measured  
Elements  
(Under  
LCC2030  
Challenge)



## URBAN TRANSPORTATION

1-1: Classified Traffic Volume Urban Road Network

1-2: Vehicle-km of Travel by Modes

2-1: Public Transport Ridership

2-2: Public Transport System Improvement and Coverage

3-1: Modal Share of Private, Public, and Non-Motorised Transport

4-1: Use of More Fuel-Efficient Vehicles for Passenger Vehicles  
and Green Freight Transport

4-2: Number of Charging Stations

5-1: Performance of Road Links and Junctions

5-2: Average Link Speeds and Journey Speeds

6-1: New Development and Redevelopment Schemes Incorporating  
TOD Concept

6-2: Walking and Cycling Facilities to Support Access and Mobility  
to/from Public Transit Nodes

## BUILDING

1-1: Active and passive designs

1-2: Operational energy consumptions

1-3: Operational water consumptions

1-4: Preserve existing building stock by retrofitting

2-1: Energy management system

2-2: Facility management

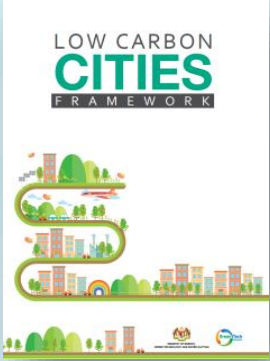




Launched on 23 July 2019 by the Ministry of Energy, Science,  
Technology, Environment & Climate Change (MESTECC)  
**now under the Ministry of Natural Resource and Environment  
Sustainability (NRES)**

\*LCC2030C is a carbon reduction recognition  
programme under LCCF

# Low Carbon Cities Framework (LCCF) as a policy tool to drive bottom up mitigation initiatives in cities by Local Authorities



V1: 2011; V2: 2017; V3: 2021

## OBJECTIVES OF LCCF

- Measure GHG emissions of Cities
- Guide for Local Authorities to transform to Low Carbon Cities
- Capacity building for Local Authorities

## LCC 2030 CHALLENGE



- Introduced in July 2019 to accelerate transformation towards low carbon cities
- Establish 200 Low Carbon Zone and 1,000 Low Carbon Partners by 2030

## ACHIEVEMENTS (2011 – 2023)

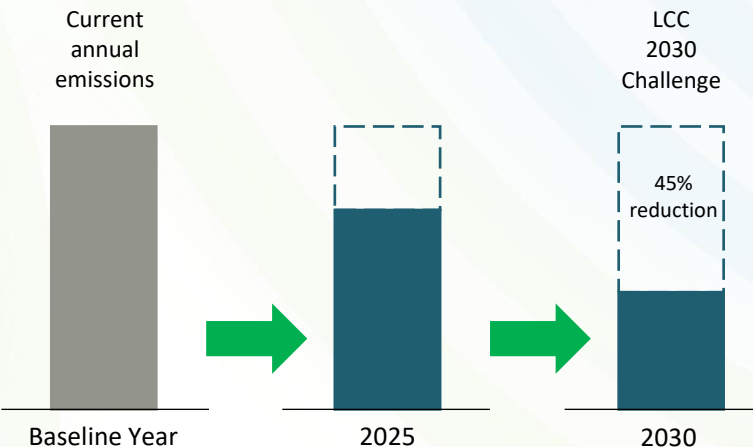
- 70 Local Authorities trained
- 61 Local Authorities actively participating
- 63 Low Carbon Zones
- 149 Low Carbon Partners
- **3,531,476.12 tCO<sub>2</sub>eq reduced**

## FOCUS ON 5 ELEMENTS

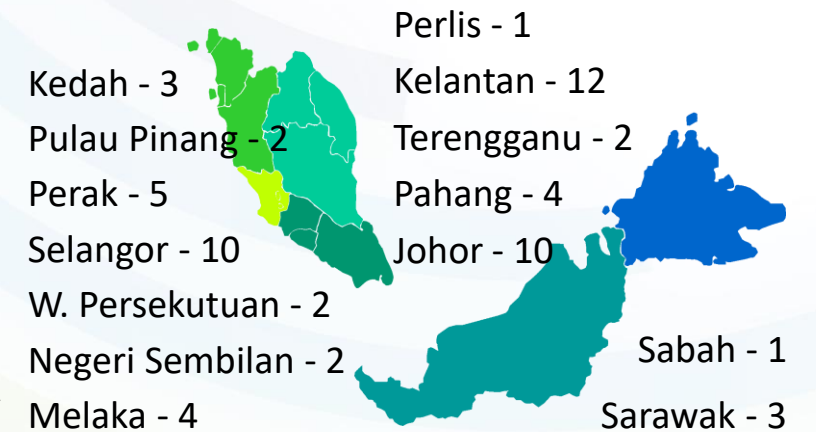
- Maximize building energy efficiency and increasing adoption of renewable energy
- Maximize water efficiency and increase adoption of rainwater harvesting
- Increasing the use of public transport (bus), cycling lanes and walking trails
- Reduce the amount of waste that goes to the landfills
- Maintain or increase the number of trees and green spaces in the city

05/12/2023

## 45% GHG EMISSIONS REDUCTION BY 2030



## LOCAL AUTHORITY PARTICIPATION BY STATE





GOAL: 200 LOW CARBON ZONES & 1,000 LOW CARBON PARTNERS

# ABOUT LCC2030 CHALLENGE



## LOW CARBON ZONES

Target: 50 by 2021  
100 by 2025  
200 by 2030

## LOW CARBON PARTNERS

Target: 100 by 2021  
500 by 2025  
1,000 by 2030

## WHAT

Accelerate the Transformation Towards Low Carbon Cities

## WHY

Cities are responsible for up to 70% of GHG emissions

## HOW

Establish Low Carbon Zones in State Capitals & Major Urban Areas

## WHO

Local Authorities, Universities, Economic Zones, Companies

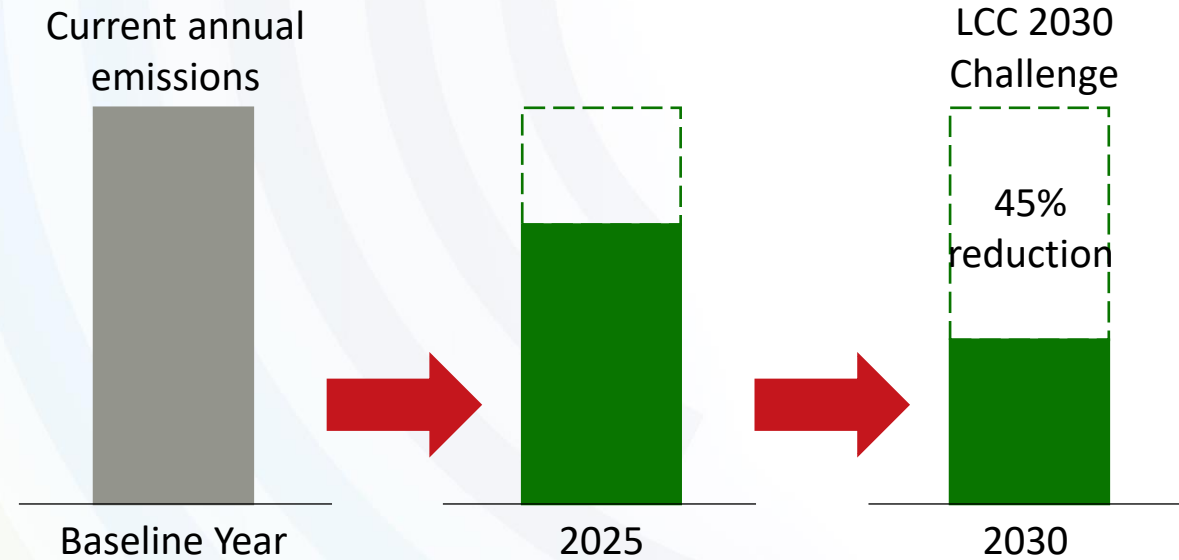


# ACCELERATING TOWARDS LOW CARBON FUTURE



## LOW CARBON CITIES 2030 CHALLENGE

**200 Low Carbon Zones (5D) by 2030**  
**1,000 Low Carbon Partners (5D) by 2030**



- Since July 2019 to accelerate transformation towards low carbon cities
- Cities are responsible for over 70% of GHG emissions.
- Reducing these emissions is key to addressing climate change and meeting Malaysia’s commitment to the Paris Climate Agreement.

# REDUCE EMISSIONS & INCREASE CARBON SEQUESTRATIONS

The LCC 2030 Challenge targets a total of **45% CO<sub>2</sub> emissions reduction** by adopting these measures:

## Reducing CO<sub>2</sub> emissions from:



- Energy:  
Maximize building **energy efficiency** and increasing adoption of **renewable energy**



- Mobility:  
Increasing the **use of public transport (bus), cycling, walking** and **other low carbon modes**



- Waste:  
Reduce the amount of **waste that goes to the landfills**



- Water:  
Maximize **water efficiency** and increase adoption of **rainwater harvesting**

## Increasing CO<sub>2</sub> sequestration from:



- Greenery  
Maintain or increase the **number of trees and green spaces** in the city

# LCC 2030 CHALLENGE DRIVING FORCE

## DRIVER 1

Malaysia's commitment to reduce GHG emissions intensity by 45% by 2030.



**12 Disember 2015**  
195 negara telah bersetuju Paris Agreement semasa Persidangan ke-21 Konvensyen Rangka Kerja Perubahan Iklim Pertubuhan Bangsa-Bangsa Bersatu (UNFCCC)

**22 April 2016**  
Malaysia menandatangani Paris Agreement

**16 November 2016**  
Malaysia meraktifikasi Paris Agreement

**KOMITMEN KERAJAAN**  
1. Malaysia akan **menubuhkan** Majlis Kebangsaan Adaptasi dan Mitigasi Perubahan Iklim  
*Janji 39, Buku Harapan*

**KOMITMEN MESTECC**  
1. **Membangunkan** Pelan Tindakan Strategik Adaptasi dan Mitigasi Perubahan Iklim Malaysia  
2. **Membangunkan** dasar dan insentif bagi **menggalakkan** pembangunan industri hijau

## DRIVER 2

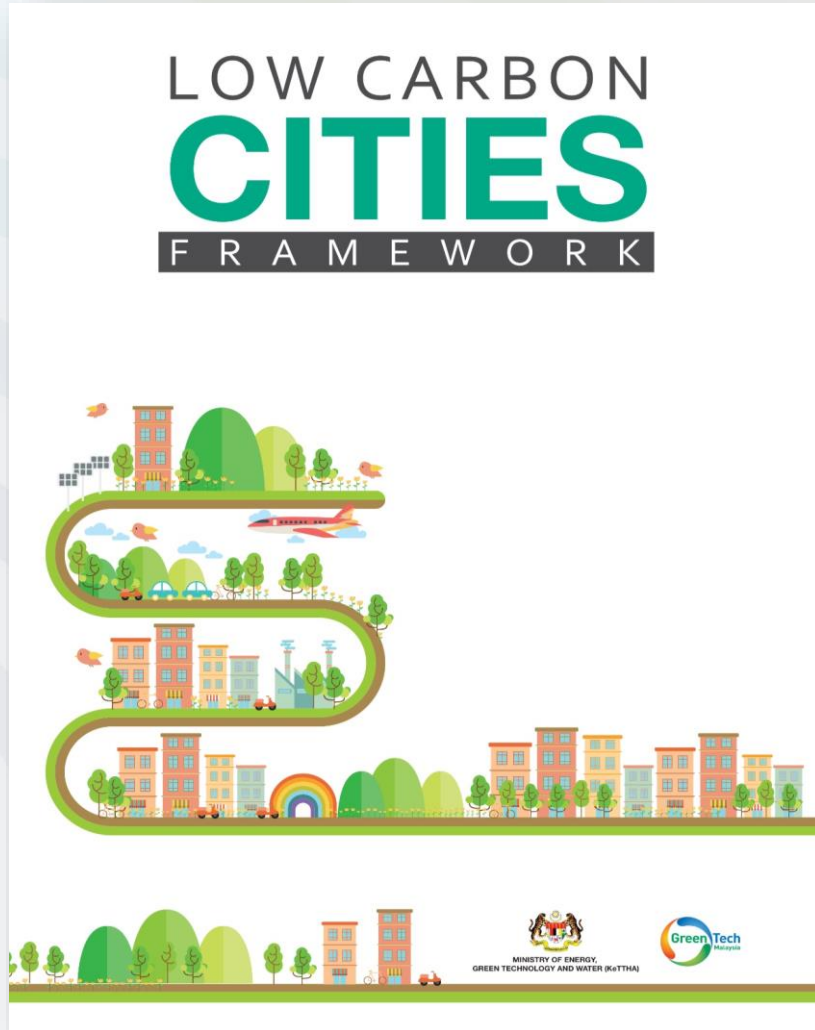
To limit global warming to 1.5°C, we have to reduce GHG emissions by 45% by 2030.

ipcc  
INTERGOVERNMENTAL PANEL ON climate change  
WMO UNEP

# Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.





## Notes:

### FOCUS ON 4 KEY ELEMENTS



#### URBAN ENVIRONMENT



#### URBAN INFRASTRUCTURE



#### BUILDING



#### URBAN TRANSPORTATION

1. The Low Carbon Cities Framework (LCCF) document serves as the main reference document for Low Carbon Cities in Malaysia.
2. Main component is Chapter 3 which is a Design Guideline to give an idea of how a Low Carbon City should look like.
3. Use this to assist in developing Action Plan.
4. The LCCF Checklist document is recommended as a guide for new developments.
5. LCCF V3 is in development.

# KEY BENEFITS OF LOW CARBON CITIES

Low carbon cities have multiple direct and indirect benefits to the residents, businesses and the city.

CLEAN	COOL	HEALTHY	LIVEABLE	VIBRANT
<p><b>Clean Air</b></p> <ul style="list-style-type: none"> <li>➤ Reduced air pollution from fossil fuel vehicles</li> </ul> <p><b>Clean Water</b></p> <ul style="list-style-type: none"> <li>➤ Reduced pollution that is discharged into the rivers</li> </ul> <p><b>Clean Land</b></p> <ul style="list-style-type: none"> <li>➤ Reduced amount of waste that goes to landfills</li> </ul>	<p><b>Cool Trees</b></p> <ul style="list-style-type: none"> <li>➤ Extensive greenery and tree cover provide shade</li> </ul> <p><b>Cool Buildings</b></p> <ul style="list-style-type: none"> <li>➤ Green buildings and homes retain less heat</li> </ul> <p><b>Cool City</b></p> <ul style="list-style-type: none"> <li>➤ The overall urban heat island effect is reduced</li> </ul>	<p><b>Healthy Environment</b></p> <ul style="list-style-type: none"> <li>➤ Reduced pollution and contamination of the environment</li> </ul> <p><b>Healthy People</b></p> <ul style="list-style-type: none"> <li>➤ Increased outdoor activity in walking and cycling</li> </ul> <p><b>Healthy Business</b></p> <ul style="list-style-type: none"> <li>➤ Healthier workforce have increased productivity</li> </ul>	<p><b>Affordability</b></p> <ul style="list-style-type: none"> <li>➤ Reduced cost from increased utility efficiency</li> </ul> <p><b>Accessibility</b></p> <ul style="list-style-type: none"> <li>➤ Multiple mobility options and connectivity</li> </ul> <p><b>Resilience</b></p> <ul style="list-style-type: none"> <li>➤ Minimal disruption to shocks and stresses</li> </ul>	<p><b>People Focused</b></p> <ul style="list-style-type: none"> <li>➤ Smaller city blocks that are pedestrian friendly</li> </ul> <p><b>Integrated</b></p> <ul style="list-style-type: none"> <li>➤ Amenities and services to facilitate a green lifestyle</li> </ul> <p><b>Urban Biodiversity</b></p> <ul style="list-style-type: none"> <li>➤ The incorporation of nature into the city development</li> </ul>

# REAL BENEFITS OF PARTICIPATING IN THE LCC 2030 CHALLENGE

## FACILITATE COMPLIANCE

1. *Demonstrate your commitment towards low carbon initiatives by the National and Local Governments*
2. *Future proof your organisation as we adapt to an uncertain climate future*

## DELIVER EFFICIENCIES

1. *Identify emissions hotspots to improve resource efficiency and save cost*
2. *Benchmark your environmental performance against that of your portfolio and the industry in general*

## ENHANCE YOUR REPUTATION

1. *Stakeholders and consumers are more conscious of the environment and certifying your low carbon efforts will strengthen your reputation.*
2. *Differentiate yourself as an environmentally responsible organization and a leader in the industry.*



## LOW CARBON ZONE



Applicable for

**(area ≥ 50 hectares):**

- Local Authorities
- Universities
- Industrial & Commercial Parks
- Economic Corridors
- Townships
- Naval & Army Base

## LOW CARBON PARTNERS



Applicable for

**(area < 50 hectares):**

- Commercial Buildings (office, malls, hotels, etc.)
- Hospitals
- Schools
- Ports & Terminals
- Sports Complex
- Parks

# EXAMPLE – SEKSYEN 14, SHAH ALAM



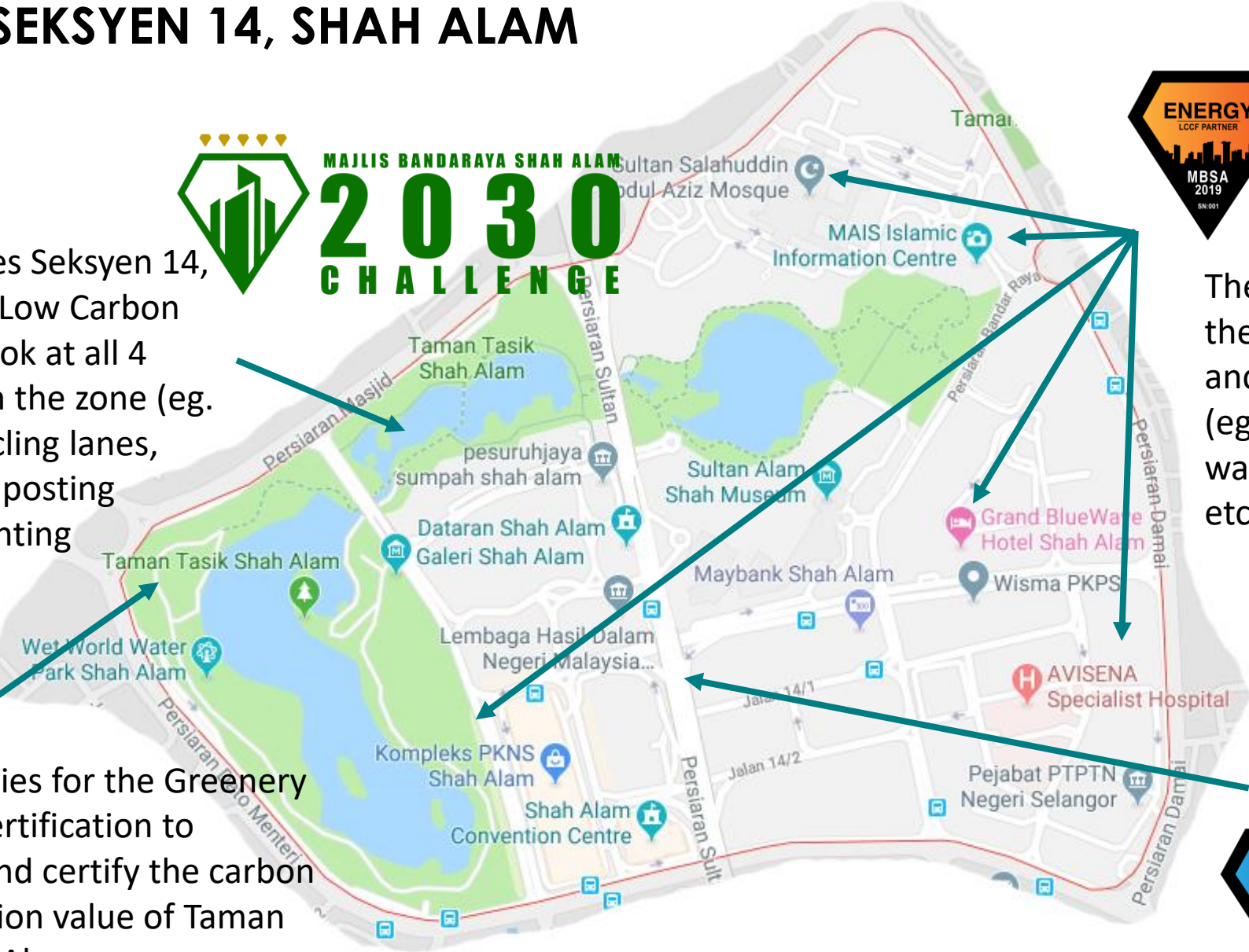
MBSA designates Seksyen 14, Shah Alam as a Low Carbon Zone and will look at all 4 elements within the zone (eg. street lights, cycling lanes, recycling & composting centre, tree planting campaign, etc.)

The individual buildings within the zone applies for the Energy and Waste Element certification (eg. building energy efficiency, waste reduction or recycling, etc.)



MBSA applies for the Greenery Element certification to measure and certify the carbon sequestration value of Taman Tasik Shah Alam.

Rapid KL starts an electric bus route to service Seksyen 14, and measures the avoided emissions.



**EXISTING CITY CATEGORY**

**ONE-TIME REGISTRATION FEE**

LC Zone (cities, university, industrial zones, etc)	: RM 5,000
LC Partner (building, park, company, etc)	: RM 1,500
LC Special Partner (House of Worship, School)	: RM 750

**AUDIT FEE\***

Provisional Audit	: RM 2,000
Diamond Audit (1D to 5D)	: RM 3,000

\*for LC Special Partner, fees is half of the price stated

**DESIGN CATEGORY**

**ONE-TIME REGISTRATION AND AUDIT FEE**

LC Zone	: RM 10,000
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**SUPPORT & GUIDANCE**

LCC Help Desk @ MGTC Meet & Greet Day	: FREE
LCC Clinic Sessions	: FREE

**Note:**

1. The Low Carbon Cities program is partially funded by the Government of Malaysia.
2. The fees charged is to cover the costs involved in delivering the program.
3. This is to ensure the continuity and sustainability of the program until 2030 and beyond.
4. Free support and guidance by MGTC will always be available as detailed out in the offered programs.





# ANALYSIS & REPORTING

<p><b>ENERGY</b></p>	<p><b>WATER</b></p>	<p><b>WASTE</b></p>	<p><b>MOBILITY</b></p>	<p><b>GREENERY</b></p>
<p>Monthly TNB Bill</p>	<p>Monthly Water Bill</p>	<p>Monthly Waste Disposal</p>	<p>Traffic Count Survey</p>	<p>Landscape Inventory</p>
<p>GHG Protocol for Cities Reference:</p>	<p>GHG Protocol for Cities Reference:</p>	<p>GHG Protocol for Cities Reference:</p>	<p>GHG Protocol for Cities Reference:</p>	<p>GHG Protocol Reference:</p>
<p><b>Stationery Energy Sources</b></p>	<p>-</p>	<p><b>Waste</b></p>	<p><b>Transportation</b></p>	<p><b>Forestry</b></p>
<p>Scope 2</p>	<p>-</p>	<p>Scope 3</p>	<p>Scope 1</p>	<p>-</p>
<p><i>Emissions from consumption of grid-supplied energy</i></p>	<p><i>Emissions from consumption of municipal supplied treated water</i></p>	<p><i>Emissions from waste generated within but treated outside of the boundary</i></p>	<p><i>Emissions from inboundary transport</i></p>	<p><i>Carbon sink</i></p>

**State:**

**Selangor**

**Local Authority:**

**MB Shah Alam**

**City:**

**Shah Alam**

**Zone Name:**

**Pusat Bandar, Seksyen 14**

**LCC Serial No.:**

**LCC-Z-B100-01-0001**

**Organisation Name:**

**Majlis Bandaraya Shah Alam**



**Elements: Baseline Year**

**Energy** 2015

**Water** 2015

**Waste** 2015

**Mobility** 2015

**Greeneries** 2015

**Population Baseline:**

8,957

**Population Final:**

8,957

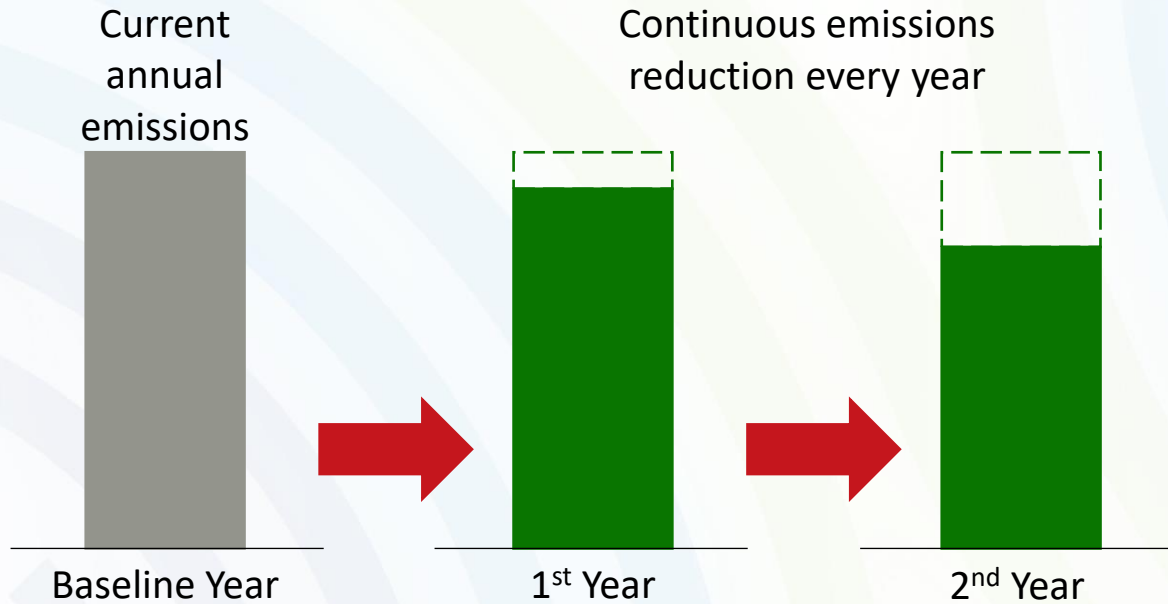
**PBT Area (ha):** 29,030.00

**Zone Area (ha):** 159.89

**Percentage Area** 0.55%



## ASSESSMENT



4 step process:



## RECOGNITION

### Provisional Certificate

Develop baseline and pledge commitment to reduce emissions

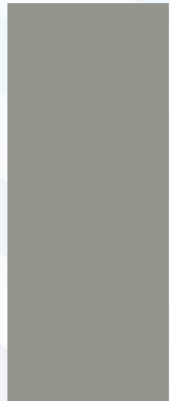
### Diamond Recognition

Achieve emissions reduction based on the scale below:

◆	1 Diamond	1% reduction
◆ ◆	2 Diamonds	5% reduction
◆ ◆ ◆	3 Diamonds	10% reduction
◆ ◆ ◆ ◆	4 Diamonds	25% reduction
◆ ◆ ◆ ◆ ◆	5 Diamonds	45% reduction

# PROVISIONAL CERTIFICATION (EXISTING CITY CATEGORY)

Current  
annual  
emissions



Baseline Year



*Provisional Certificate*  
Develop baseline and  
pledge commitment to  
reduce emissions

REGISTER

Choose Zone or  
Partner Category

DEVELOP BASELINE  
& SUBMIT  
APPLICATION

Collect data for  
energy, water,  
waste, mobility or  
greenery

LCC PROVISIONAL  
AUDIT BY MGTC

Visit client  
premises and  
verify documents

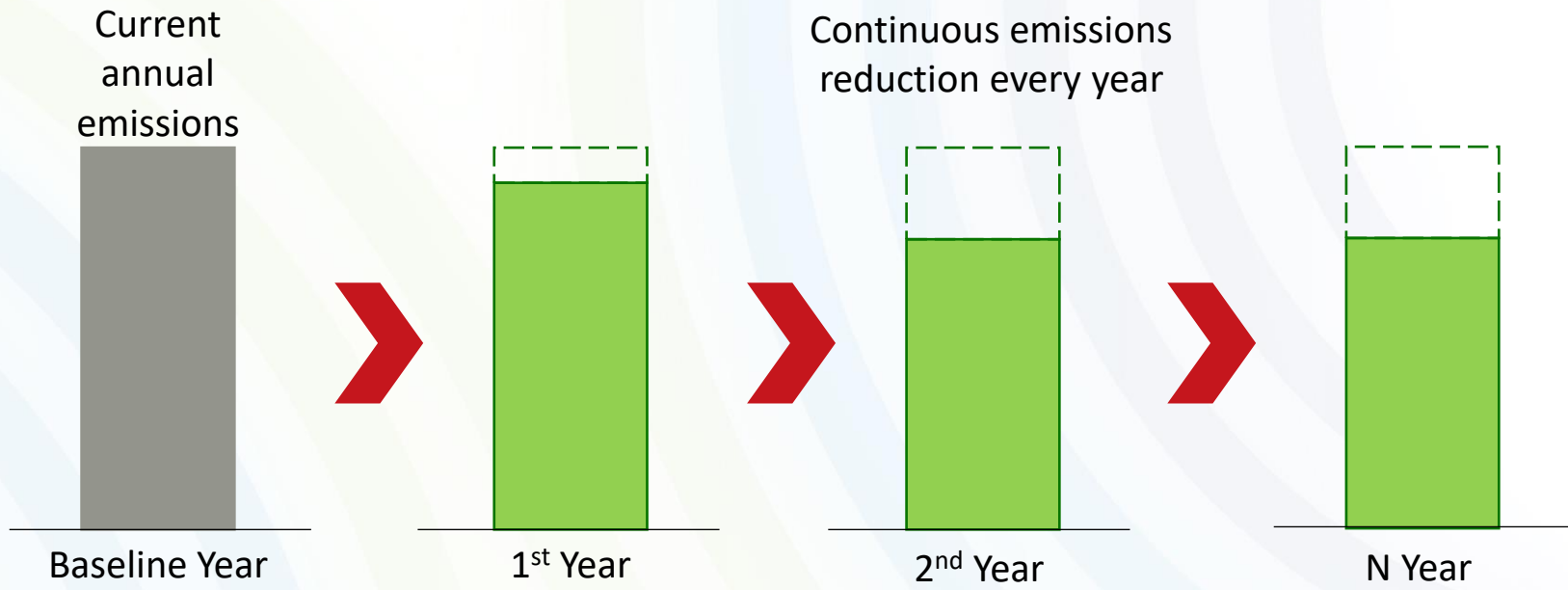
LOW CARBON  
CITIES TECHNICAL  
COMMITTEE

Present and  
approve for  
certificate award

AWARD  
PROVISIONAL  
CERTIFICATE

Low Carbon Cities  
Awards Ceremony

# DIAMOND RECOGNITION (EXISTING CITY CATEGORY)



IMPLEMENT LOW CARBON INITIATIVES

Implement initiatives to reduce emissions

MEASURE REDUCTION & SUBMIT APPLICATION

Collect data for energy, mobility, waste or trees

LCC DIAMOND AUDIT BY MGTC

Visit client premises and verify documents

LOW CARBON CITIES TECHNICAL COMMITTEE

Deliberate and recommend for recognition award

LOW CARBON CITIES STEERING COMMITTEE

Present and approve for recognition award

AWARD DIAMOND RECOGNITION






Low Carbon Cities Awards Ceremony @ IREM



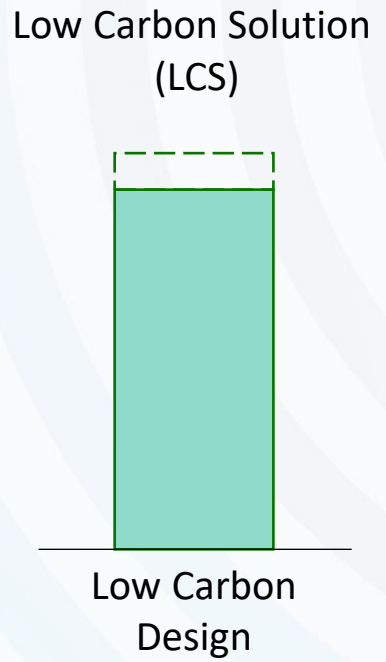
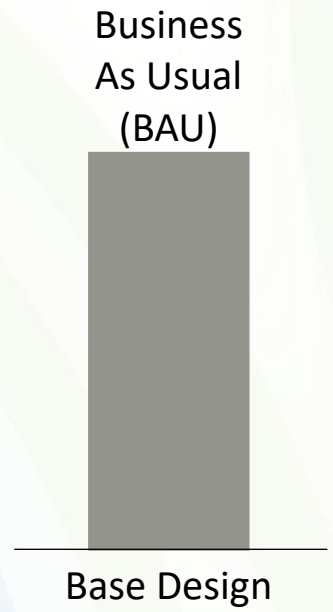
## EXAMPLES OF CARBON ASSESSMENT RESULTS (EXISTING CITY CATEGORY)

Element	Total Carbon Emissions		Reduction Achieved		Diamond Level
	2015 (B) tCO <sub>2</sub> /yr	2018 (A) tCO <sub>2</sub> /yr	(B-A) tCO <sub>2</sub> /yr	%	
Energy	54,801.69	49,687.28	5,123.41	9.35	2 D
Water	165.19	148.16	17.03	10.31	3 D
Waste	2,023.78	1,535.08	488.70	24.15	3 D
Mobility	3,512.06	2,007.23	1,504.83	42.85	4 D
<b>Total Emissions</b>	<b>60,502.73</b>	<b>53,368.74</b>	<b>7,133.99</b>	<b>11.79%</b>	
Element	Total Carbon Sequestrations		Sequestration Increased		Diamond Level
	2015 (B) tCO <sub>2</sub> /yr	2018 (A) tCO <sub>2</sub> /yr	(A-B) tCO <sub>2</sub> /yr	%	
Greenery & Water Bodies	6,462.40	6,462.40	0.00	0	
<b>Total Sequestration</b>	<b>6,462.40</b>	<b>6,462.40</b>			

This is to verify that  
<PIHAK BERKUASA TEMPATAN>  
for the  
<Zone Name>  
Low Carbon Zone  
has successfully reduced its GHG emissions by **11.79%**  
since 2015 across 4 elements which is equivalent to  
**7,133.99 tCO<sub>2</sub>e**  
and has maintained its carbon sequestration potential  
of **6,462.40 tCO<sub>2</sub>/year**

ELEMENT	REDUCTION ACHIEVED	DIAMOND LEVEL
ENERGY	9.35%	
WATER	10.31%	
WASTE	24.15%	
MOBILITY	42.85%	
ELEMENT	SEQUESTRATION	DIAMOND LEVEL
GREENERY	Maintained	

# DIAMOND RECOGNITION (DESIGN CATEGORY)



No Provisional Certificate, One time only Diamond Recognition

REGISTER

Zone Category

DEVELOP BASE CASE & SUBMIT APPLICATION

Formulate data for energy, water, waste, mobility and greenery

LCC DIAMOND AUDIT BY MGTC

Meet, Site Visit (if applicable) and verify documents

LOW CARBON CITIES TECHNICAL COMMITTEE

Deliberate and recommend for recognition award

LOW CARBON CITIES STEERING COMMITTEE

Present and approve for recognition award

AWARD DIAMOND RECOGNITION

Low Carbon Cities Awards Ceremony

## EXAMPLES OF CARBON ASSESSMENT RESULTS (DESIGN CATEGORY)

CARBON EMISSIONS REDUCTION ESTIMATION, tCO <sub>2</sub> e							
Element	BAU	Unit	Est. kg CO <sub>2</sub> e	Design	Unit	Est. kg CO <sub>2</sub> e	% Reduction
Energy	210	kWh/m <sup>2</sup>	145.74	200	kWh/m <sup>2</sup>	138.80	2.38%
Water	100	m <sup>3</sup>	41.90	90	m <sup>3</sup>	37.71	1.00%
Waste	100	tonne	58,653.13	90	tonne	52,787.82	1.00%
Mobility	100	VKT	18.37	95	VKT	17.45	1.50%
							<b>5.88%</b>

CARBON SEQUESTRATION ESTIMATION, tCO <sub>2</sub> e							
Element	BAU	Unit	Est. kg CO <sub>2</sub>	Design	Unit	Est. kg CO <sub>2</sub>	% Increase
Greenery	9.44	ha	18,881.01	14.16	ha	28,321.52	50.00%
							<b>50.00%</b>

### RECOMMENDATION

- Based on the assessment results, the redevelopment of **SEKSYEN 3 < City Name >** has been designed to reduce carbon emissions by **5.88% tCO<sub>2</sub>** as compared to the BAU design.
- Therefore, it is recommended that **SEKSYEN 3 < City Name >** is awarded **2 Diamonds** for their Low Carbon Design.



# LCC2030 CHALLENGE PROCESS FLOW



# LOW CARBON CITIES 2030 CHALLENGE

## Provisional Certificate



A Provisional Certificate is awarded to those who have established their emissions baseline and are now working on their low carbon plans

## Diamond Recognition



A Diamond Recognition is awarded to those who have successfully achieved actual reduction in carbon emissions based on their comprehensive action plan.



# 2023 LOW CARBON CITIES AWARD

**85** Diamond Recognitions

17 Zones  
68 Partners

**15** Provisional Certificates

3 Zones  
12 Partners

**2** Diamond Design Recognitions





## Registration Form

- REC-LCC-008-LCC 2030 CHALLENGE Registration Form

## Application for Recognition

- REC-LCC-010-LCC 2030 CHALLENGE Application Form for Recognition

## Data File

- REC-LCC-011-LCC 2030 Challenge Data File - LCC Zone
- REC-LCC-012-LCC 2030 Challenge Data File - LCC Partner
- REC-LCC-015-LCC 2030 Challenge Data File – LCC Zone (Design)

## Report Template

- REC-LCC-013-LCC 2030 CHALLENGE Provisional Report Template
- REC-LCC-004-LCC Blueprint Implementation Document



## TERIMA KASIH

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