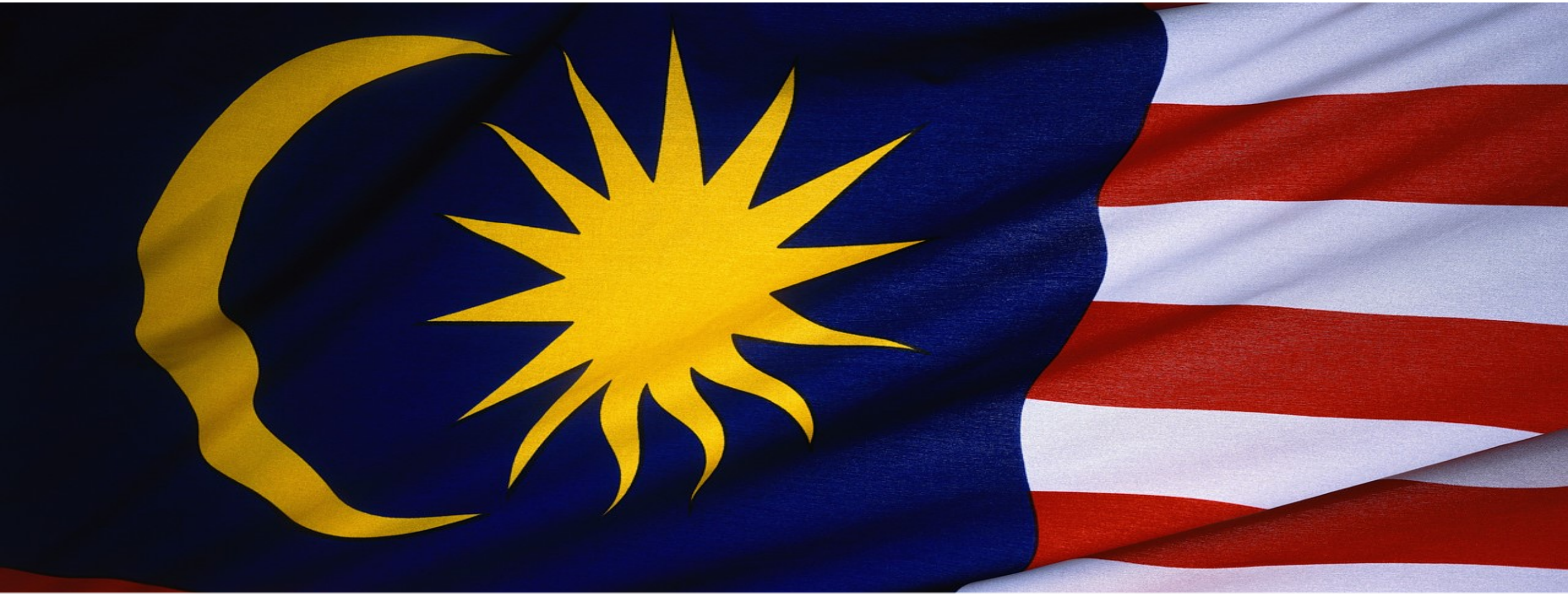


HANG TUAH JAYA CITY MELAKA . MALAYSIA



HON. YB DATUK AR. HJ ISMAIL BIN HJ. OTHMAN
CHAIRMAN OF THE STATE COMMITTEE FOR HOUSING,
LOCAL GOVERNMENT AND ENVIRONMENT, MELAKA

The 1st APEC Low-Carbon Model Town Symposium
14 September 2017



MALAYSIA



MALAYSIA



MELAKA

**HANG TUAH
JAYA CITY**



MALAYSIA
Malacca
Hang Tuah Jaya City

Malaysia (Country) – Melaka (State) – Hang Tuah Jaya (City)



Don't
mess with
Melaka.



MELAKA Green Technology
City State

Melaka supports Malaysia's Vision 2020 to be a high income low carbon developed nation with a minimum GDP Per Capita of USD15,000 by the year 2020. Melaka is leveraging on three (3) strategic objectives:

- maintaining status as a DEVELOPED STATE;
- achieving status as a CITY STATE;
- achieving status as a GREEN CITY

Melaka set a vision to become A Green Technology City State By The Year 2020



Green+
Malaysia's Premier Eco-friendly,
Sustainable and Green Business Magazine

Let there be light
Sarawak Energy illuminates two longhouses in Batang Ai's interior through solar

Pursuing green packaging potentials
How often, when shopping, do you find yourself choosing a product because of its packaging?

Second balloting done
SEDA carries out process for solar photovoltaic applications for non-individuals

IN THIS ISSUE

- Natural gas subsidies in Malaysia
- Feather in Heriot-Watt's cap
- Wastewater you can drink
- Navigating the Atlantic as a giant turtle

Fast & Furious
With his foot firm on the pedal, Chief Minister Datuk Seri Ir Idris Haron accelerates Melaka to several laps ahead of other States in promoting green technology, sustainability and an eco-friendly environment

5.5 %

GDP GROWTH RATE

RM31.7 billion

GDP

RM14.5 billion (45.6%)

SERVICES SECTOR

RM13.0 billion (40.9%)

MANUFACTURING SECTOR

1.0 %

UNEMPLOYMENT RATE

2.3%

INFLATION RATE

0.1%

POVERTY RATE

RM6,046

HOUSEHOLD INCOME

RM39,853

PER CAPITA INCOME

Background of Melaka – Economic Scenario



Source:
Melaka State Economic Planning Unit



Melaka Green City Action Plan (M-GCAP)



1 WATER MANAGEMENT

Goal: Protect and enhance the quality of surface and groundwater bodies in Melaka



2 ENERGY EFFICIENCY & RENEWABLE ENERGY

Goal: Reduce GHG emissions through efficiency and increase in use of renewables in the generation and usage



3 GREEN TRANSPORTATION

Goal: Increase opportunities for alternative modes of transportation and reduce GHG emissions resulting from vehicular use



4 ZERO WASTE

Goal: Put Melaka on the path to become a "zero-waste" state and reduce waste-related GHG emissions



5 CULTURAL HERITAGE & TOURISM

Goal: Promote sustainable tourism to balance needs of visitors with those of residents while ensuring preservation of cultural heritage



6 URBAN FORESTRY & AGRICULTURE

Goal: Protect forests and areas with rich biodiversity, and improve agricultural practices

Melaka Green City Action Plan (M-GCAP) & 6 Sectoral

INDONESIA-MALAYSIA-THAILAND GROWTH TRIANGLE (IMT-GT)

Melaka was selected under 'IMT-GT Green Cities Initiative' with Medan (Indonesia) and Songkhla (Thailand) – 27 September 2012



Key Projects under IMT-GT Green Cities Initiative:

- Melaka Green City Action Plan (M-GCAP)
- Green City Benchmarking and Baseline Indexing by ADB – ICLEI
- GHG Carbon Inventory (using HEATPlus software) by ICLEI
- Energy Efficiency (EE) State Owned Government Building by Danish Energy Management

MELAKA IS THE CHAIRMAN OF THE IMT-GT GREEN CITY COUNCIL MEETING SINCE 1 MARCH 2016 IN CONJUNCTION WITH THE 2ND RESILIENT CITIES ASIA PACIFIC FORUM IN MELAKA.



1ST IMTGT Green Council Meeting (1st March 2016)

IMT-GT Green City Initiatives



Melaka GHG Inventory Report was published during the UNFCCC Conference Of Parties (COP) 21 In Paris, France (November 2015)

MELAKA STATE

Greenhouse Gas Emission Inventory Report 2013



Prepared by:
Melaka Green Technology Corporation
ICLEI - Local Governments for Sustainability, South Asia
ICLEI - Local Governments for Sustainability, Southeast Asia
November 2015



*Global Protocol for
Community-Scale Greenhouse
Gas Emission Inventories*

An Accounting and Reporting Standard for Cities



GHG Inventory Report 2013 for Melaka State

GREEN DOCUMENT:

Blueprint Melaka Maju Negeriku Sayang Negeri Bandar Teknologi Hijau, 2011-2020

STATE OF MELAKA

Three (3) main Objective:

- Developed State
- City State
- Green Technology State

HANG TUAH JAYA CITY

“Support and agreed to Hang Tuah Jaya City to become the first green cities in Melaka”

- Page 87, Blueprint Melaka Maju



Blueprint Melaka Maju 2011-2020: “Hang Tuah Jaya City as first green city”

HANG TUAH JAYA CITY

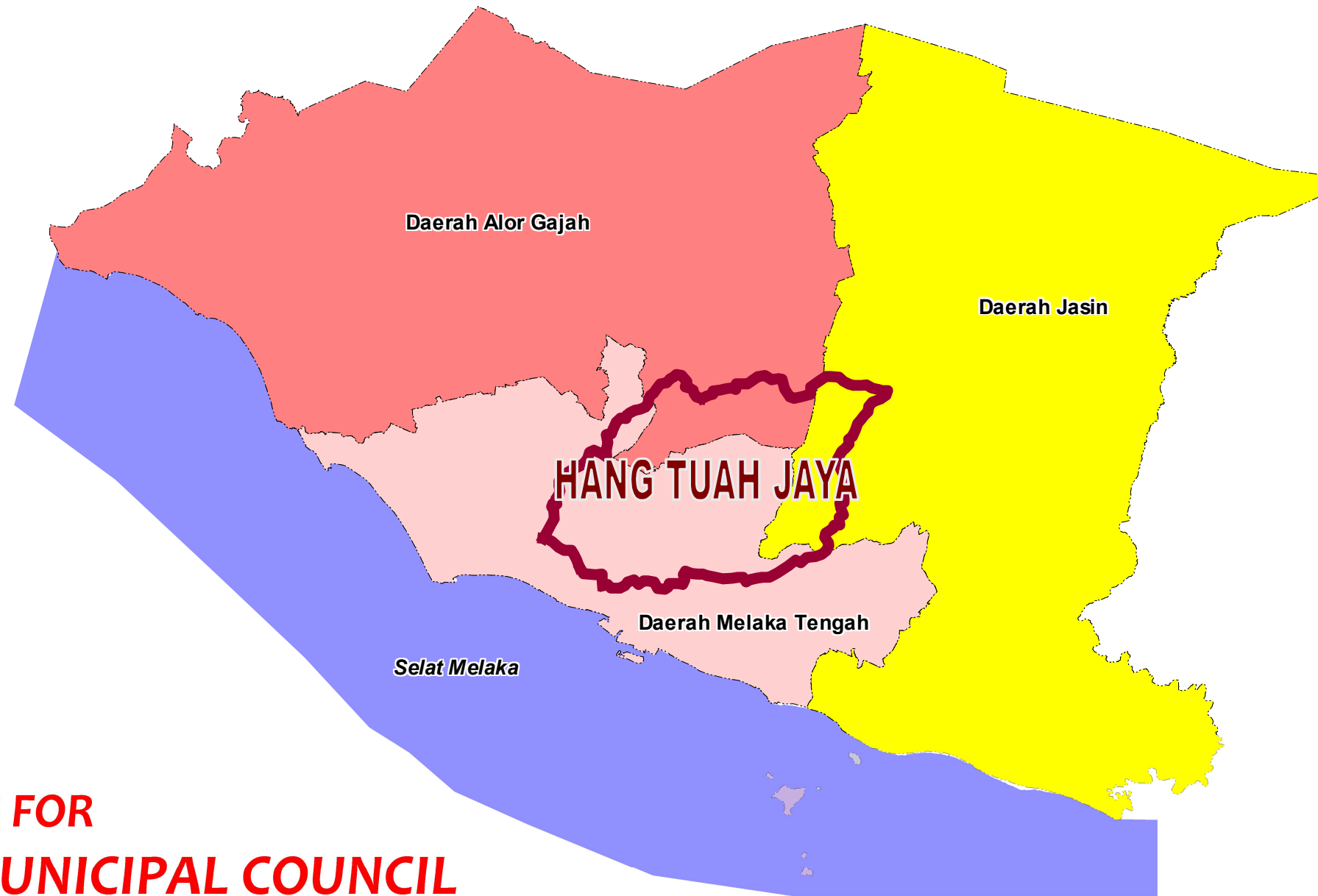
Governed by Hang Tuah Jaya Municipal Council

Started
1 JANUARI 2010

Rank
**ONE OF 4 LOCAL
COUNCIL IN
MELAKA**

Area
**35,733.04 ACRE /
144.6 KM SQUARE**

Population
161,290 PEOPLE



**FACTS FOR
HANG TUAH JAYA MUNICIPAL COUNCIL**



Background for Hang Tuah Jaya City



Study Area: State of Melaka Administrative Centre (1,956.57 acre)



**MELAKA INTERNATIONAL TRADE CENTER (MITC) AREA
- GOVERNMENT BUILDING AREA -**

Image of Study Area



**SERI NEGERI COMPLEX
- STATE GOVERNMENT BUILDING -**

Image of Study Area



**GREEN DEVELOPMENT / BUILDING
- SOLAR FARM 8MW & REHABILITATION CENTRE PERKESO -**

Image of Study Area

“As City Manager, we committed to support national vision to reduce carbon emission intensity by 45% per GDP per capita by year 2030 ”

*Datuk Murad Husin
Mayor,
Hang Tuah Jaya Municipal Council*



1
MAYOR

24
COUNCILLORS

308
OFFICERS

161,290
RESIDENTS



Our Commitment



YOUNG SOUTHEAST ASIAN
LEADERS INITIATIVE



International Networking

GREAT MOMENT

Low Carbon City Framework Project

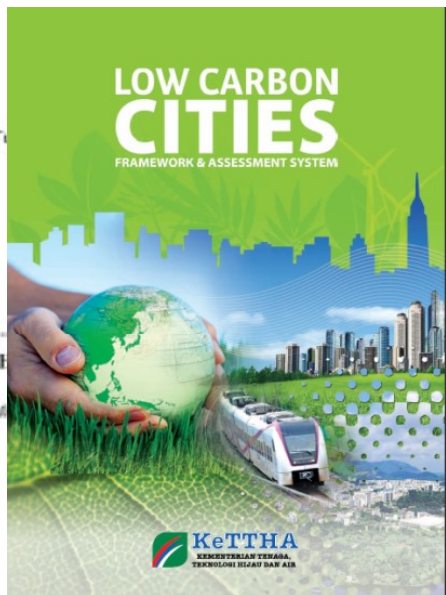
“Carbon emission baselines were successfully collected from year 2012 until today. In fact the carbon emission baseline data collection is still in progress since it is an ongoing process. In 2014, carbon emission baselines show positive results. It was found that there was a decrease in carbon emission to **434.26 tCO₂** as compared to 2013. This indicates a **4.30%** reduction in carbon emission. This was due to the **awareness programs** and **green practices within the organization** which encourages energy conservation from the usage of electricity, water and other sources.

The Ministry of Energy, Green Technology and Water Malaysia (KeTTHA) has presented MPHTJ with a diamond award that indicates Best Practice 1 (1% - 9% carbon reduction level)”



Location: Pilot Implementation Area
The System
Urban Environment & Building
27.61 ha
3.4% of the total area of Hang Tuah Jaya
013

[Signature]
GLIMA DR. MAXIMUS JOH
Minister
Energy, Green Technology and Water



Hang Tuah Jaya Low Carbon City Great Moment

4.3% (Best Practice 1)

for the year

2014

under the

LOW CARBON CITIES FRAMEWORK
AND ASSESSMENT SYSTEM (LCCF)



HANG TUAH JAYA CITY

Our Recognition Towards Low Carbon City

MPHTJ perintis projek Bandar Rendah Karbon

MELAKA - Majlis Perbandaran Hang Tuah Jaya (MPHTJ) dipilih sebagai perintis Bandar Rendah Karbon pada tahun 2014. Yang Dipertuanya, Saipiah Haron berkata, program dengan kerjasama Kementerian Tenaga, Teknologi Hijau dan Air serta Malaysian Green Technology Corporation itu melibatkan kawasan seluas 791.8 hektar merangkumi Pusat Dagangan Antarabangsa Melaka, Taman Tasik Utama dan sebahagian kawasan Taman Botani...

“HANG TUAH JAYA MUNICIPAL COUNCIL PIONEER FOR THE LOW CARBON CITY PROJECT”

“HANG TUAH JAYA MUNICIPAL COUNCIL AS MODEL OF GREEN CITIES”

“HANG TUAH JAYA MUNICIPAL COUNCIL AS A FIRST LOCAL COUNCIL TO RECEIVE DIAMOND RATING”



Oleh AZHAR YUSOF



MOHD Khalil menerima cenderahati disampaikan Idris.

MPHTJ Jadi Bandar Hijau contoh

...serta para penjawatnya... Majlis pelancaran Sambutan Hari Perbandaran Ke-6 MPHTJ telah disempurnakan Yang di-Pertua Negeri, Tun Mohd Khalil Yaakob. Hadir sama Speaker Dewan Undangan Negeri, Datuk Wira Othman Muhammad; Setiausaha Kerajaan Negeri, Datuk Wira Naim Abu Bakar; Exco Perumahan, Kerajaan Tempatan dan Alam Sekitar, Datuk Ar. Ismail Othman...

Kompleks Melaka Mall di sini semalam. Majlis pelancaran Sambutan Hari Perbandaran Ke-6 MPHTJ telah disempurnakan Yang di-Pertua Negeri, Tun Mohd Khalil Yaakob. Hadir sama Speaker Dewan Undangan Negeri, Datuk Wira Othman Muhammad; Setiausaha Kerajaan Negeri, Datuk Wira Naim Abu Bakar; Exco Perumahan, Kerajaan Tempatan dan Alam Sekitar, Datuk Ar. Ismail Othman...

yang bernilai RM478,000. “MPHTJ telah membangun dengan cemerlang selaras dengan hasrat kerajaan negeri untuk menjadikannya sebagai bandar contoh bandar hijau. Sekali gus memberi faedah dan manfaat secara langsung kepada penduduk yang akhirnya turut membantu meningkatkan kualiti hidup rakyat,” katanya. Idris berkata, Pihak Berkuasa Tempatan (PBT) merupakan agensi barisan hadapan yang paling dekat dengan rakyat dan berperanan penting membantu kerajaan mencapai dasar dan program yang direncanakan di peringkat tempatan. Jelasnya, justeru itu PBT perlu peka maklum balas masyarakat serta menghayati budaya mesra rakyat dan mesra pelanggan. Katanya, budaya turun padang perlu terus dilaksanakan bagi menyelesaikan masalah dibangkitkan orang awam,” ujarnya.



MAWI World semasa mengadakan persembahannya.



BARISAN kenamaan serta hadirin mendengar ucapan disampaikan Idris pada Majlis Pelancaran Sambutan Hari Perbandaran MPHTJ Ke-6 di Melaka Mall, Rabu lalu.

Newspaper Coverage

Objective of Low Carbon Cities Framework (LCCF) & Assessment system

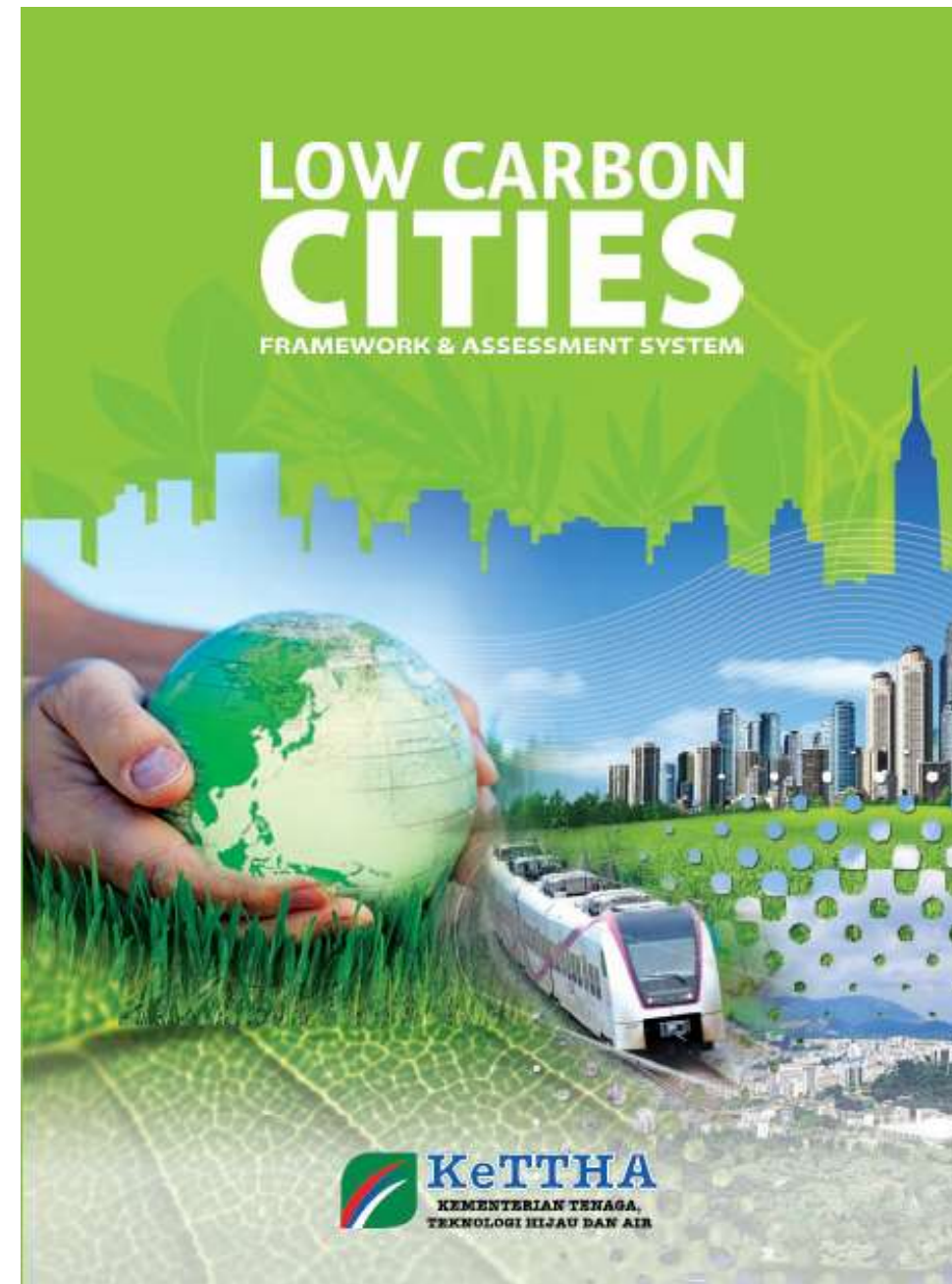
- To encourage & promote the concept of low carbon cities and townships in Malaysia.
- To increase the compatibility of cities/townships with their local natural system.
- To guide cities in making choice/decisions towards greener solutions.

Users

- All Cities & Townships in Malaysia

Targets

- To reduce carbon emission intensity by 45% per GDP per capita by the year of 2030



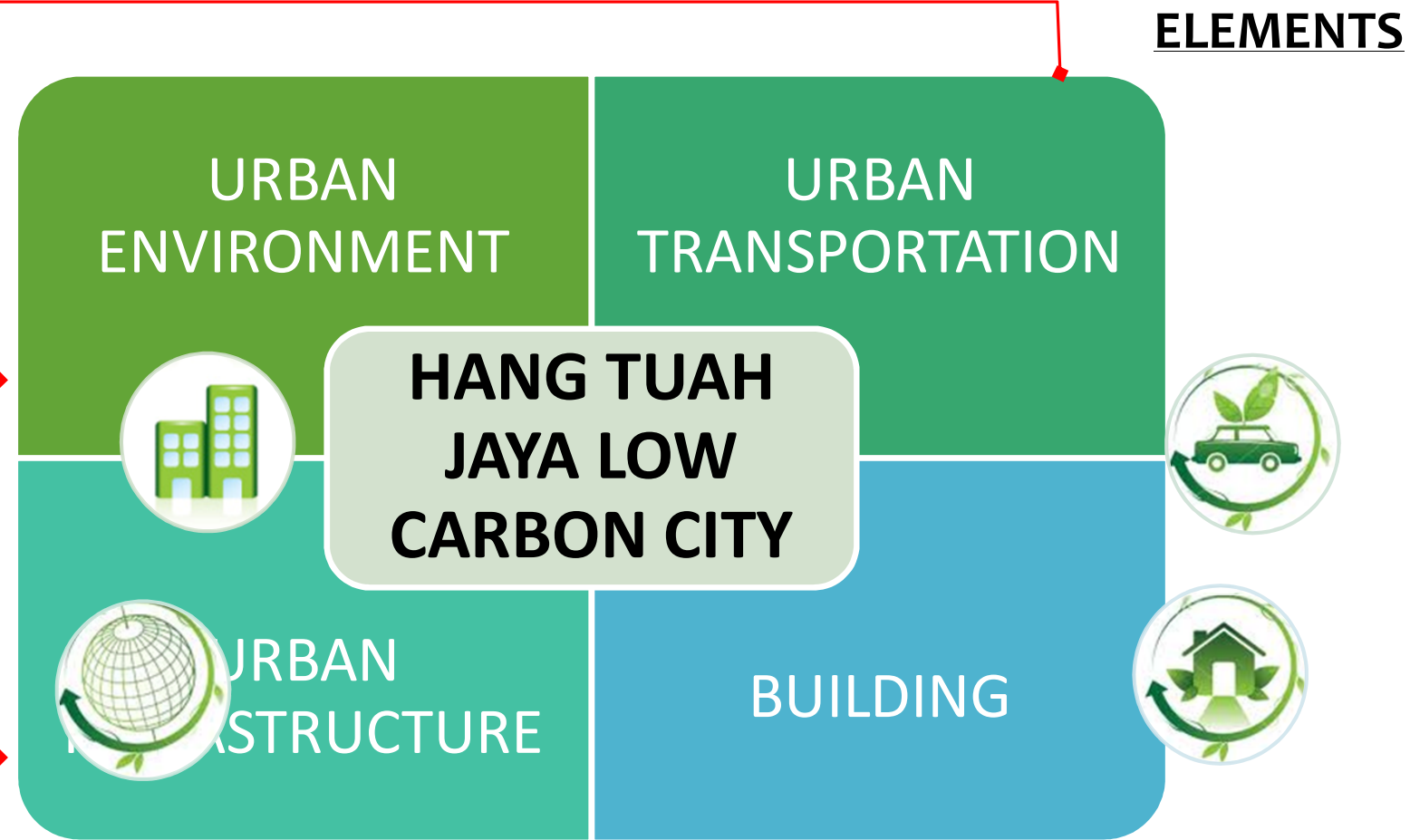
“Hang Tuah Jaya City become the pioneer for this project through MOU signing on Jun 2012 and get the status of “pilot partner”. There just only two (2) cities in Malaysia involved at the early stage of this project”

This document is to *assist local authorities, township developers, planners and individuals* in assessing whether developments carried out within the city contributes towards the reduction or decrease in GHG

Implementation of Low Carbon Cities Framework & Assessment System (LCCF)

PERFORMANCE CRITERIA

- Shift of Transport Mode
- Green Transport Infrastructure
- Green Vehicles
- Traffic Management
- Site Selection
- Urban Form
- Urban Greenery & Air Quality
- Infrastructure Provision
 - Waste
 - Energy
 - Water
- Low Carbon Building
- Community Service

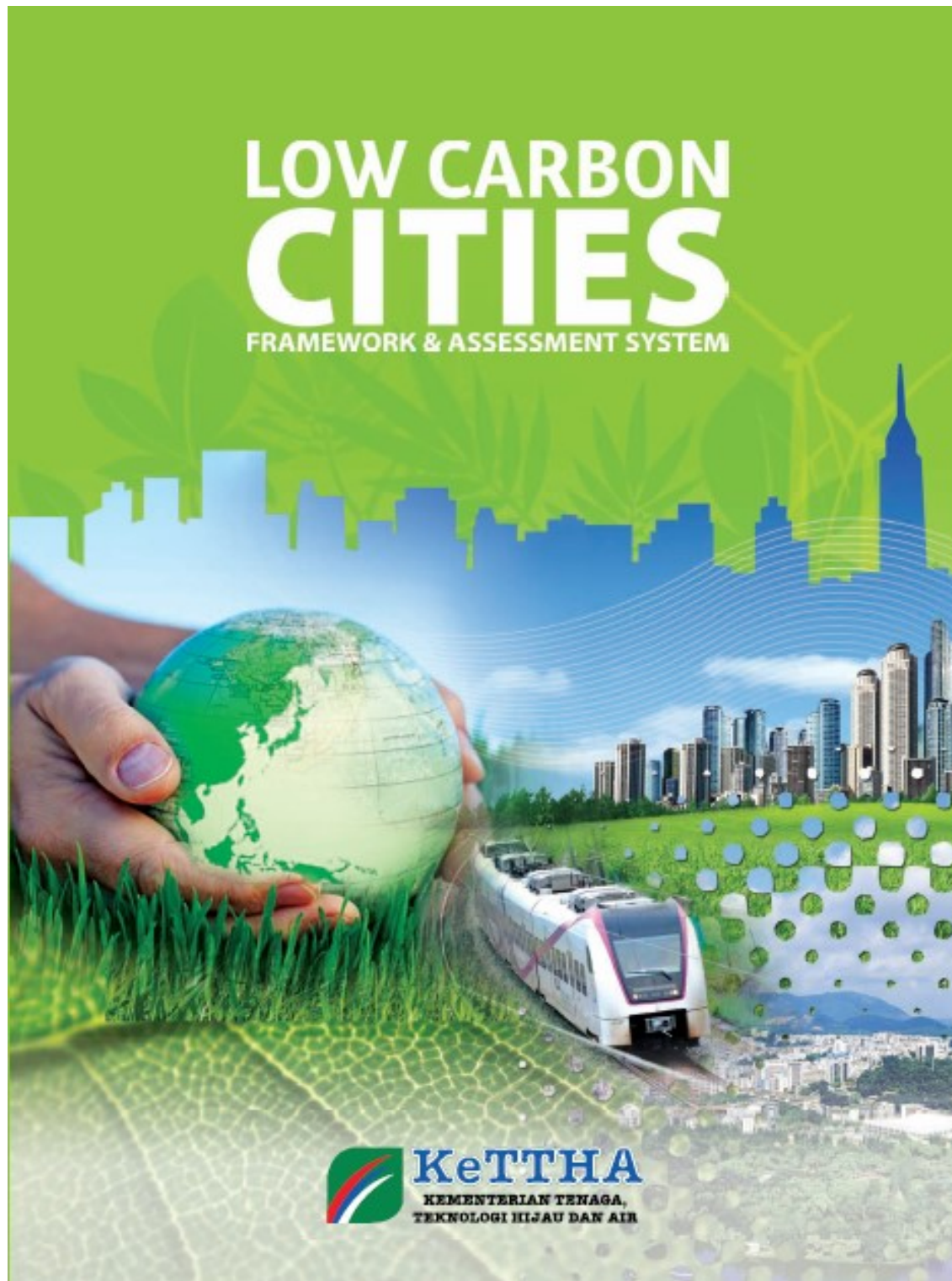


ELEMENTS

4
ELEMENTS

13
PERFORMANCE
CRITERIA

35
SUB-CRITERIA



MOU Signing : 28 JUN 2012

PILOT PROJECT (PP)

- I) MAJLIS PERBANDARAN HANG TUAH JAYA**
- II) MAJLIS BANDARAYA MIRI**
- III) UNIVERSITI MALAYA (UM)**
- IV) UNIVERSITI TEKNOLOGI MALAYSIA (UTM)**
- V) UNIVERSITI ISLAM ANTARABANGSA, MALAYSIA**

APPROACH : “ 1 SYSTEM APPROACH”

NAME OF PROGRAM:

“LOW CARBON CITIES @ HANG TUAH JAYA 2014”

**PHASE 1: 2012 – 2016 (AREA = 1957.56 ACRE)
BASELINE YEAR = 2013
ASSESSMENT YEAR = 2014, 2016**

**PHASE 2: 2017 – 2030 (AREA = 16117.18 ACRE)
BASELINE YEAR = 2017**

Background Project

LCCF CARBON TRACKING :: BASELINE AND FINAL RESULTS						
Calculator Criteria	Element	Total Carbon Emissions (tCO2/year)		Total Carbon Emissions (tCO2/year) Reduction (B - P)	%	Percentage Reduction Achieved (B-P)/B
		2013 Baseline (B)	2014 Final (P)			
LANDUSE	LANDUSE - C Storage in Soil (losses)	24.39	24.39	0.00	0.00	0.00
	LANDUSE - C Sequestration by Vegetation (losses)	0.00	0.00	0.00	0.00	0.00
LANDSCAPE	LANDSCAPE - C Storage in Soil (losses)	-233.04	-233.04	0.00	0.00	0.00
	LANDSCAPE - C Sequestration by Vegetation	-14,968.87	-14,980.63	11.76	-0.08	
	LANDSCAPE - C Seq. by Trees (not within Open Space)	-20.10	-20.01	-0.09	0.45	
EMBODIED CARBON IN CONSTRUCTION	Building Construction	5,304.91	5,304.91	0.00	0.00	
	Infrastructure Construction	0.00	0.00	0.00	0.00	
OPERATIONAL CARBON	Energy	19,837.78	19,391.02	446.76	2.25	
	Water	143.79	167.96	-24.17	-16.81	
	Waste	0.00	0.00	0.00	0.00	
TOTAL EMISSIONS		10,088.87	9,654.60	434.26	4.30	
RESULT: Best Practise 1 - One (1) Diamond)						

Total Carbon Emissions
2013
10,088.87 tCO2

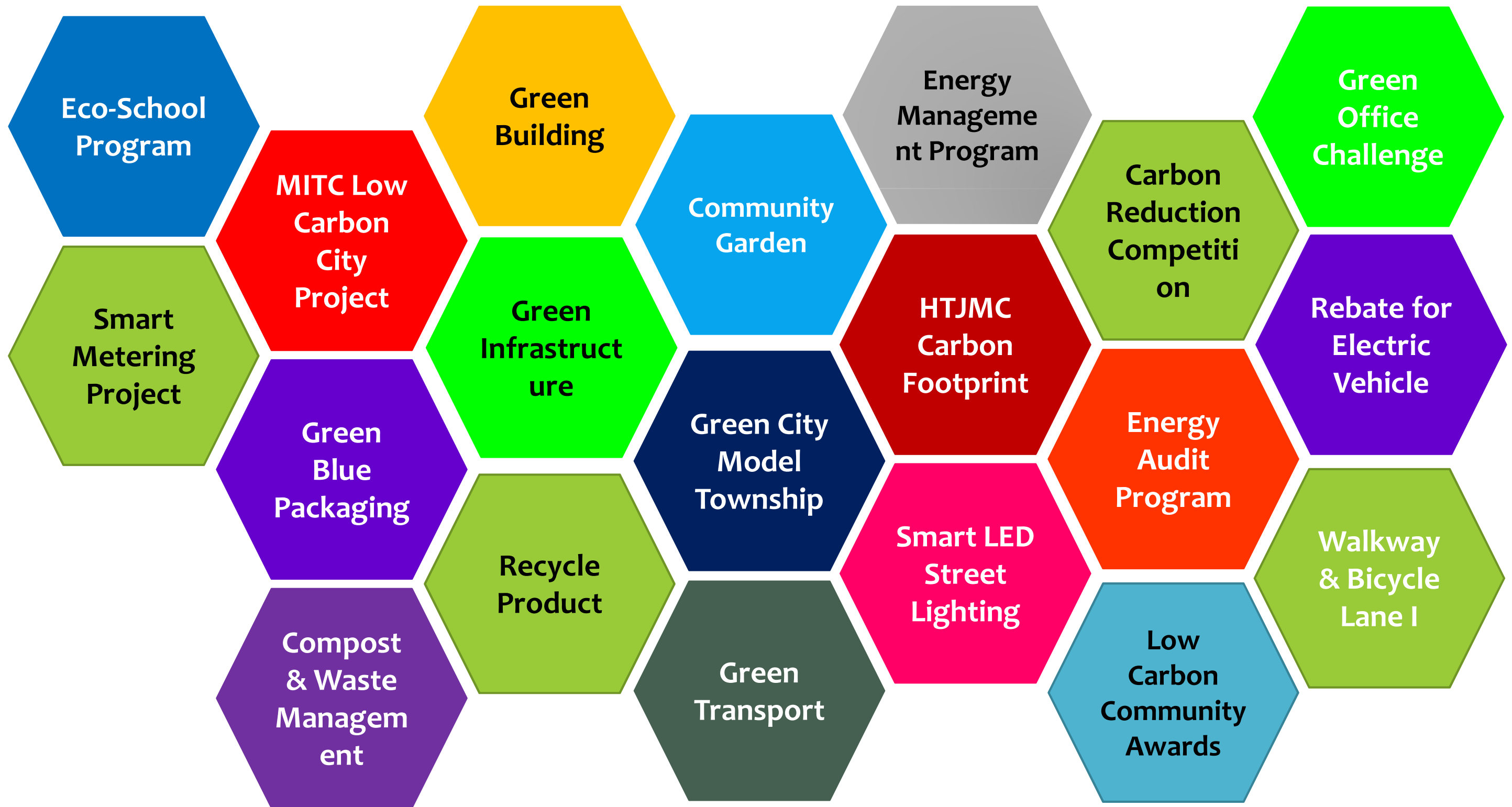
Total Carbon Emissions
2014
9,654.60 tCO2

Total Reduction Carbon Emissions for 2014
434.26 tCO2 compared to 2013

Reduction Carbon Emissions for Energy (Electricity) for 2014
compared to 2013

446.76 tCO2

Final Result. Baseline Year: 2013. Assessment Year: 2014



Hang Tuah Jaya City Low Carbon Initiative

Initiated Solar Farm Project in Melaka

Total 3 project in Melaka (2 project in Hang Tuah Jaya City):

Complete Project

1. Gading Kencana Solar Farm (capacity – 8 MW)
2. KMB Solar Farm (capacity – 5 MW)

Under Construction (Expected 2018)

1. Green Plus Solar Farm (capacity – 50 MW)



8 MW Solar Farm, Hang Tuah Jaya Green

Initiated the pilot project by installing Smart Meters to 400 household residents in Melaka

Monitor energy usage online via apps

Tenaga Nasional Berhad (TNB) plan to expand the usage of Smart Meter to whole Melaka in next 2 years



Nation Home > News > Nation
Friday, 21 November 2014

85 houses installed with TNB smart meters under pilot project

A A

MALACCA: Consumers with smart meters installed in their homes under a Tenaga Nasional Bhd pilot project here have welcomed the initiative in support of more efficient energy consumption.

Hamali Abu Bakar, 33, from Taman Tasik Utama in Ayer Keroh, whose single-storey house was fitted with the smart meter at the end of October, said he was invited to participate in the pilot project a few months ago.

He said TNB technicians gave him a tutorial on how the new meter worked after installing it.

"The smart meter system allows me to monitor my electricity usage and cut down on wastage," said Hamali when met at his home here yesterday. "The home display device allows me to monitor consumption by viewing my usage history, usage graph, and total and current consumption."



User-friendly: Hamali showing the home display unit of the smart meter system that was installed at his house last month.

Melaka Smart Grid Pilot Project – Smart Meter

- First fully operated electric bus in Malaysia.
- Successfully completed 3 month trial in March 2014.
- Travel in Melaka World Heritage City and Low Carbon City (Hang Tuah Jaya).
- Can travel up to 280 km fully charged.
- Planning for 40 electric bus operating in Melaka.



Melaka Electric Bus

- First launched on 11 October 2013
- Two (2) charging station available. (Melaka City & Hang Tuah Jaya City)
- To establish Melaka as the center of the electric car connectivity between Kuala Lumpur and Singapore



Seri Negeri, Ayer Keroh

Melaka Electric Car Charging Station



- Bike Share – Located in Heritage Area (Melaka City)
- OFO Bike – Serve area Melaka City & Hang Tuah Jaya City
- O Bike – Area Hang Tuah Jaya City (MITC, Melaka Mall, MMU, UTEM)



Bike Share



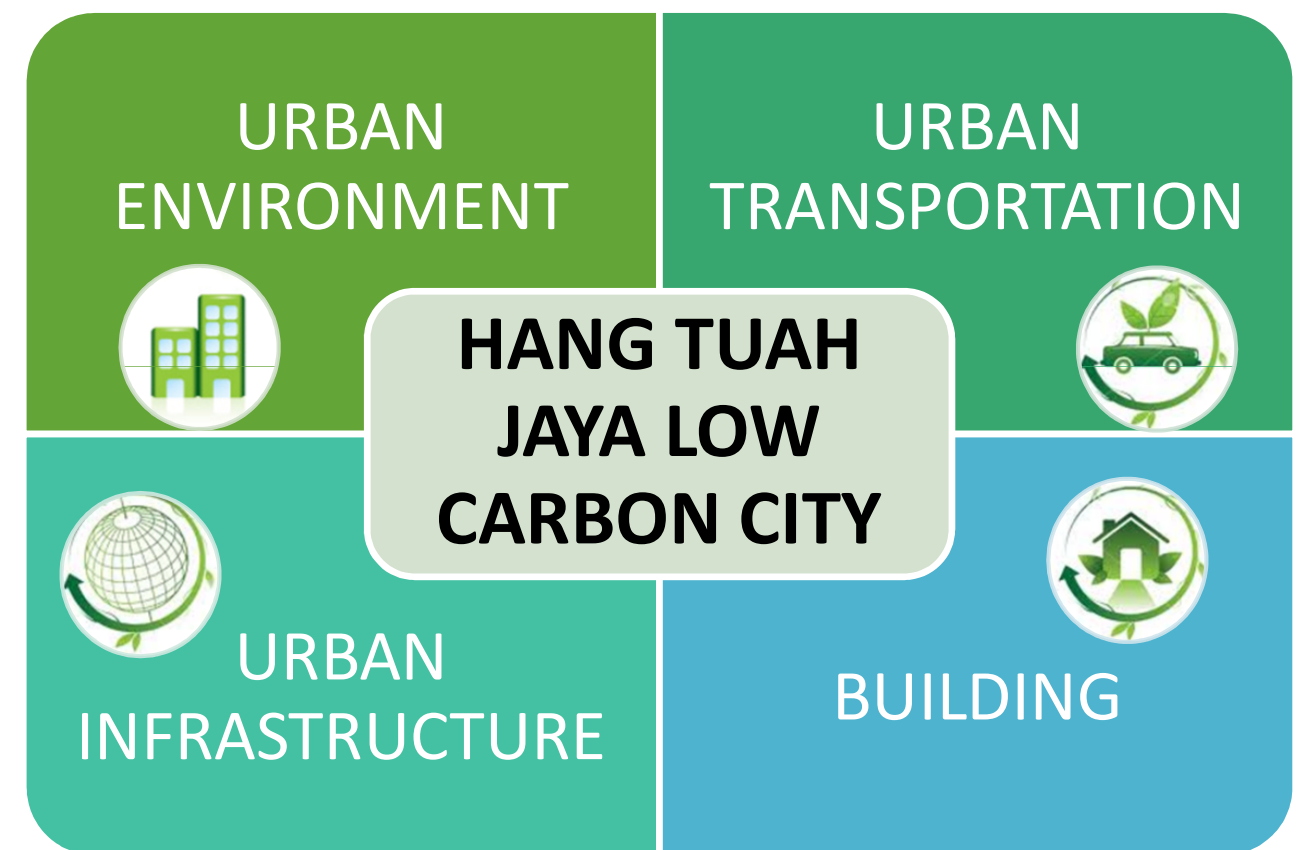
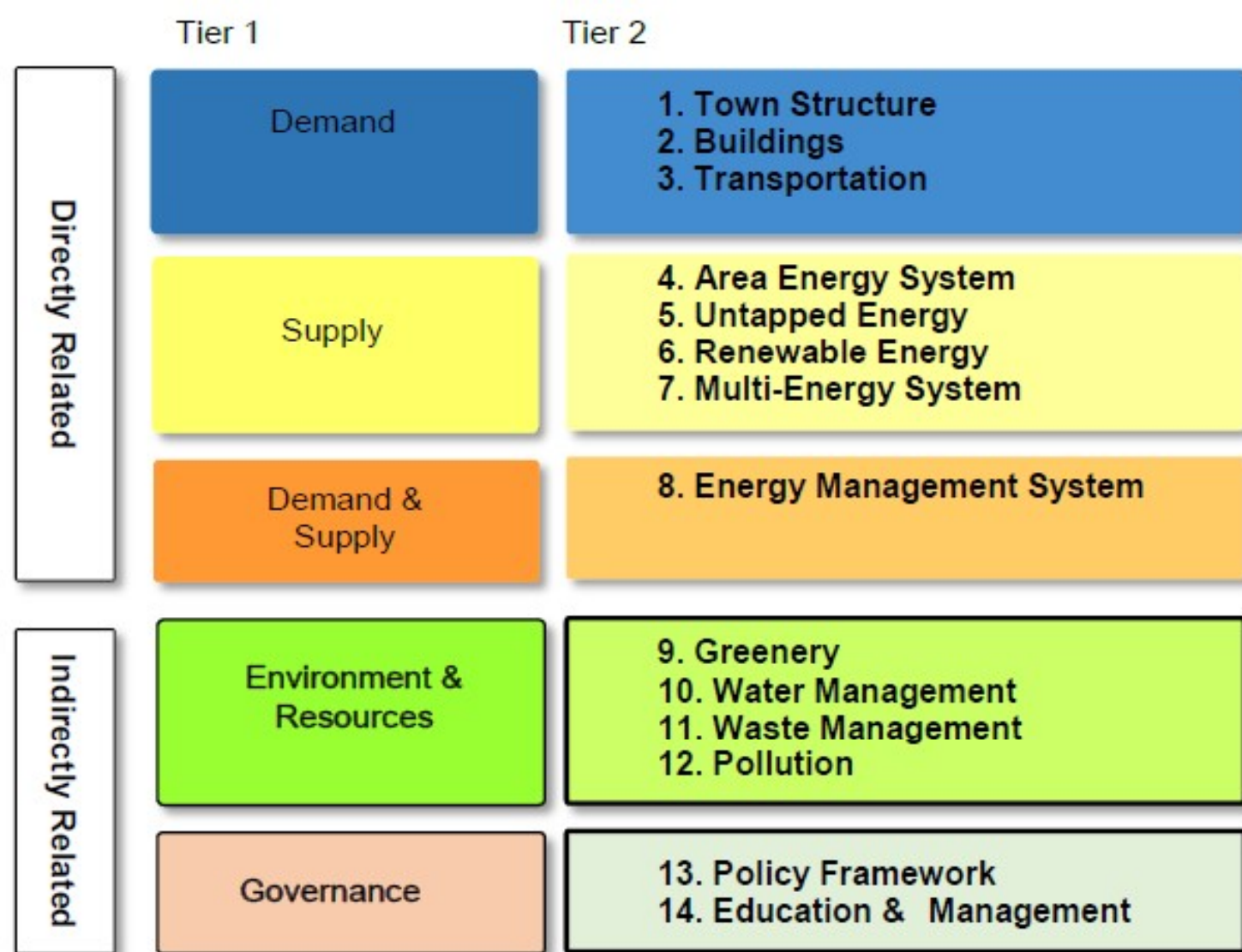
O Bike



OFO Bike

Melaka Bike Rental

Low-Carbon Measures in Hang Tuah Jaya City



4 elements, 13 performance criteria, 35 sub-criteria

LCT-I, Japan

LCCF, Malaysia

Low-Carbon Measures in Hang Tuah Jaya City

Demand	1. Town Structure	<p><u>Adjacent Workplace and Residence / Land Use / Transit Oriented Development (TOD)</u></p> <ul style="list-style-type: none">• Hang Tuah Jaya City was develop at early 2000. The development of master plan consider element of integration and interaction between land use.• CBD area concentration by Government Office Building• Surrounding (less than 1 kilometer) by housing / residential scheme namely Taman Tasik Utama, Melaka Perdana, Ozana dan etc.• Plot Ratio for this area: 1:4 with the density about 60 unit / acres.• Implementation of Transit Oriented Development. New project: My High Speed Rail Integrated Development. Expected complete on 2026. The radius for TOD average 750 meter from the station.
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Low-Carbon Measures in Hang Tuah Jaya City

Demand	2. Building	<p><u>Energy Saving Construction / Green Construction</u></p> <ul style="list-style-type: none">• All new development in this area must have green building rating (Green Building Index (GBI), Melaka Green Seal (MGS), Mycrest (CIBD) and etc)• Through this compliance green building rating, its covers:<ol style="list-style-type: none">i. Orientation of buildingii. Ventilation and natural lightingiii. Construction materialiv. Façade and designv. and, others• In progress to apply MS1525 – Malaysia Standard: Energy Efficiency and use of renewal energy• Apply for passive design in all construction such as site planning and orientation, daylighting, façade design, natural ventilation, thermal insulation, strategic landscaping, renewable energy
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Low-Carbon Measures in Hang Tuah Jaya City

Demand	3. Transportation	<p><u>Promotion of Public Transportation, Improvement in Traffic Flow, Introduction of Low-Carbon vehicles, Promotion of Effective Use</u></p> <ul style="list-style-type: none">• Hang Tuah Jaya City served by public transport mainly public bus and taxi. The My High Speed Rail Project will introduce the feeder service from the station to the city (expected 2026).• City also have rental bicycle system known as 'O Bike, OFO Bike & Bike Sharing'• 1 undergoing study relate to green transport by local University (expected completion on November 2017)• Program "rebate / discount parking for EV". Through this program all EV owner can get discount at half from the normal rate• City also provide a charging station for a free• Introduce 40 electric buses to serve Melaka City
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Low-Carbon Measures in Hang Tuah Jaya City

Supply	4. Area Energy System	<p><u>introduction of area energy system</u></p> <ul style="list-style-type: none"> • District Cooling System – Introduce in development of 800 acres Hang Tuah Jaya Green City (New Project) on 2011. Facing problem at implementation stage related to the capital cost and investment matter. • Success DC project in Malaysia – Putrajaya
	5. Untapped Energy	<p><u>introduction of untapped energy</u></p> <p>Not yet implemented. Looking for the advice and recommendation</p>
	6. Renewable Energy	<p><u>introduction of renewable energy</u></p> <ul style="list-style-type: none"> • Currently have 2 Solar Farm project (1 complete and 1 in progress) • Complete project : Gading Kencana Solar Farm (8MW) • In Progress : Capacity 50MW

Low-Carbon Measures in Hang Tuah Jaya City

Supply	7. Multi Energy System	<p><u>introduction of multi energy system</u></p> <p>Not yet implemented. Looking for the advice and recommendation</p>
Demand & Supply	8. Energy Management System	<p><u>measures on energy management of buildings, area energy management system and smart micro grid</u></p> <ul style="list-style-type: none"> • “Building Consumption Input System (BCIS) project” – Currently monitoring and analyzing the usage of energy (electricity & water) in 14 building under the criteria of Low Carbon Building, LCCF Assessment • Introduction of Energy Audit for building – Currently 1 complete project for Melaka Mall Complex • In progress to implement Malaysia Standard (MS) 1525 – focusing energy management in new construction building / project.

Low-Carbon Measures in Hang Tuah Jaya City

Environment & Resources	9. Greenery	<p><u>measures on securing green space and formation of greening</u></p> <ul style="list-style-type: none"> • requirement 10% from each development must provide green space. • taken into consideration the shading aspect for minimize UHI • Formation of greening: >40%. Contribute by Urban Forest@Botanical Garden, Melaka
	10. Water Management	<p><u>measures on water usage</u></p> <ul style="list-style-type: none"> • Implementation of Rain Water Harvesting for all new project in Hang Tuah Jaya starting 2015 • Use Building Consumption Input System (BCIS) to monitor the usage of water in 14 buildings (LCCF Assessment Project) • Non Revenue Water (NRW) Melaka Level : 2016 – 18% compared to 2008 – 30.1%

Low-Carbon Measures in Hang Tuah Jaya City

Environment & Resources	11. Waste Management	<u>measures on waste reduction</u> Program: <ul style="list-style-type: none">• Separation at sources• 2+1 Collection System = 2 (food and organic waste), 1 (recyclable materials and garden waste)• No plastic bag in Melaka• Food Composting program• Eco-school program – as a part of awareness and education
	12. Pollution	measures on air/water/soil pollution prevention Monitoring by Department of Environment (DOE). Regulating Document: Malaysia's Environmental Quality Act of 1974

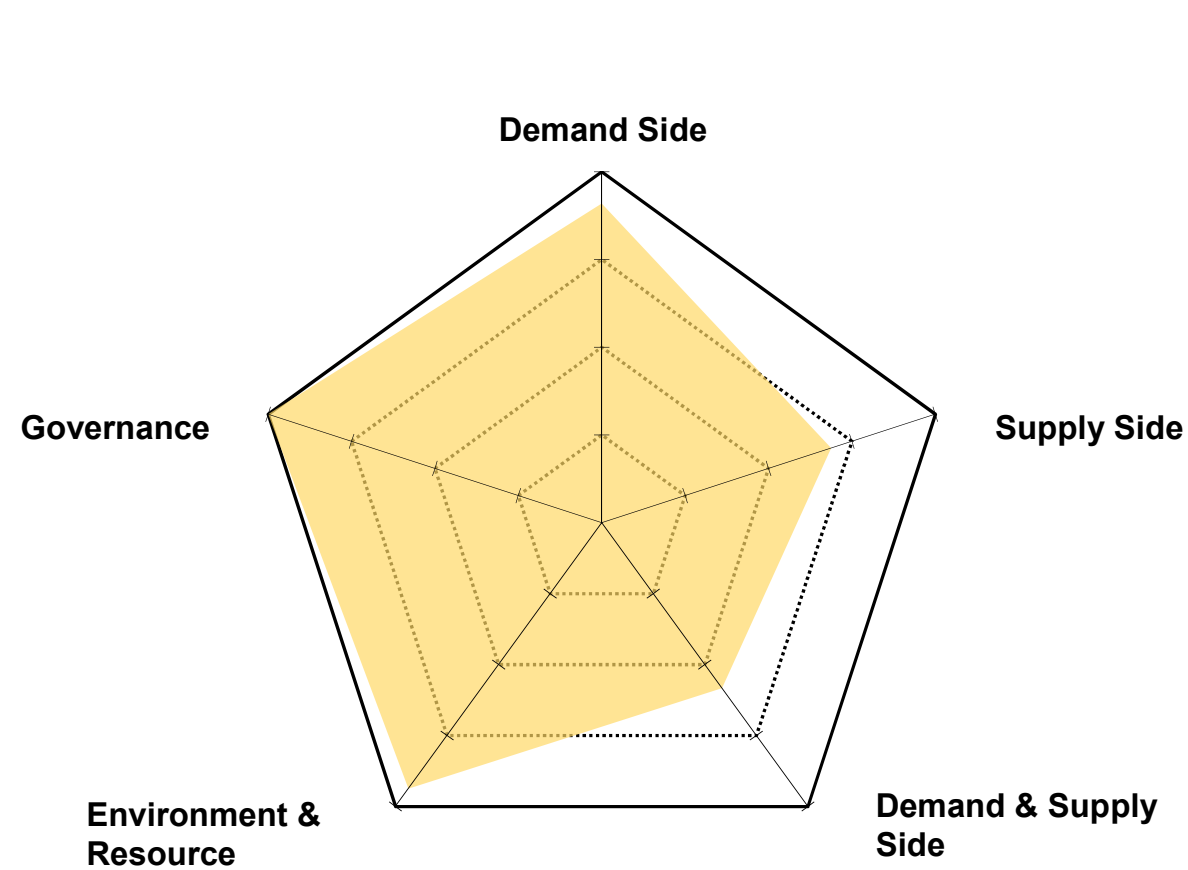
Low-Carbon Measures in Hang Tuah Jaya City

Governance	13. Policy Framework	<p><u>Efforts toward a low-carbon town, budget for policies/business plans to create a low-carbon town, business/life continuity plan and development with less influence, etc.</u></p> <ul style="list-style-type: none">• Melaka as forefront / leading state in term of application of green technology and fighting climate change• Melaka Green City Action Plan & “Blueprint Melaka Maju” was the main document support for green sector in Melaka.• Melaka committed towards green cities as Hon. Chief Minister of Melaka as a Chairman for Green Growth Asia
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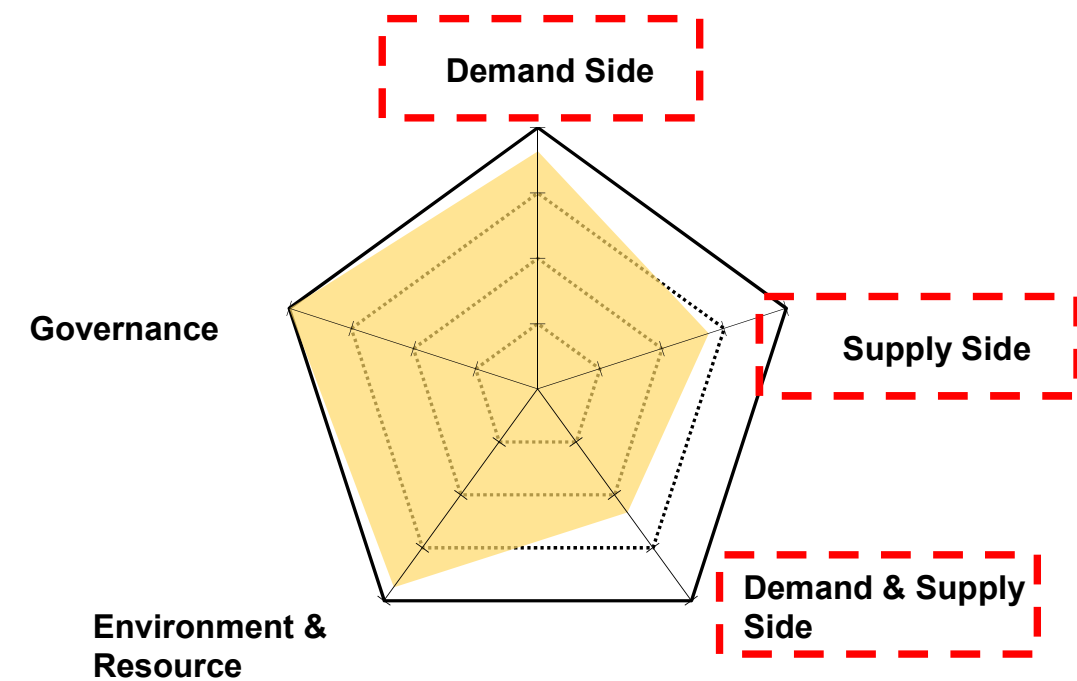
Low-Carbon Measures in Hang Tuah Jaya City

Governance	14. Education & Management	<p><u>Education for energy saving and low-carbon town, area management (community associations, stakeholder involvement), etc.</u></p> <ul style="list-style-type: none">• 300 housing owner in Hang Tuah Jaya has been selected for pilot project Smart Metering. Through this project, residents have some program related to awareness and energy saving action• Melaka has launch program namely “Melaka Eco-School” to give awareness and education at early aged to support next generation for green agenda. Hang Tuah Jaya Municipal is one of the key players in this program• We also have local university to play important role in term of research related to green development and low carbon
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Self-evaluation Results of Hang Tuah Jaya City



2016 (Existing)



To improve the 3 aspect which is 'Demand Side', 'Supply Side' and 'Demand & Supply Side' and at the same time to strengthen the another 2 aspect; 'Governance' and 'Environment & Resource'

2030 (Future Plan)

Feedback for LCT-I System

Please describe any comments on the LCT-I System.

- What were the difficulties in the evaluation process?
 - Some aspect need more explanation in term of definition, application and measurement
 - The scoring system was subjective
- How are you going to utilize the evaluation results?
 - From the results, we can know the strongest and weakness aspects.
 - The result will become as a baseline or benchmark for further planning
- How do you think the LCT-I System can be improved?
 - Make it available online
 - provide with the supports and assistant function
- Any expectations for the LCMT Secretariat to further develop the LCT-I System?
 - Yes

4.3% (Best Practice 1)
for the year
2014
under the
LOW CARBON CITIES FRAMEWORK
AND ASSESSMENT SYSTEM (LCCF)



**GREEN
APPLE
AWARD
WINNER
2015**

**GREEN
APPLE
AWARD
WINNER
2016**



THANK YOU

HANG TUAH JAYA CITY . MELAKA . MALAYSIA

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Jalan Tun Abdul Razak-Lebuh Ayer Keroh, Hang Tuah Jaya, 75450 Ayer Keroh,
Melaka

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+606-2322778

Facebook | <https://www.facebook.com/mphtj/>

Email | teknologihijau@mphtj.gov.my

Website | <http://www.mphtj.gov.my/>