DEVELOPMENT AND IMPLEMENTATION OF LOW CARBON TARGETS, MITIGATION TIMELINES AND ACTION PLANS

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at
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Target 2 under Goal 11 of SDGs mentioned a specific target to be achieved by transport sector:

“By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.”
Malaysia’s commitment to climate action

Nationally Determined Contribution (NDC)

Malaysia has committed to...

-45%

In 2030

GHG intensity against GDP vs. 2005 level

...and aspires for...

Net Zero

By 2050 at earliest
Transport sector contributes 20% of total domestic GHG emission

90% emission is from road transport
(private vehicles 51%, commercial vehicles 23%, motorcycles 12%)
In line with the SDG2030, this thrust ensures that the transport system will be efficient, clean and resilient with minimal impact to the environment.
Malaysia National Transport Policy 2019-2030

Policy Thrust 4: Advance towards green transport
- ST 1: Enforce compliance to acts/regulations and shift towards international environmental standards
- ST 2: Prioritise public transport network as the fundamental structure in charting out sustainable spatial and transportation growth in urbanised areas
- ST 3: Accelerate implementation of low carbon mobility initiatives
- ST 4: Institute measures to control pollution, noise and waste from the transport sector
Low Carbon Mobility Blueprint (LCMB) 2021-2030

The policy framework seeks to reduce emissions from the transportation sector, which currently ranks as the second-largest carbon emitter in the nation after the energy sector, with predominantly internal combustion engine (ICE) vehicles on the road.

Four (4) focus areas of LCMB:

i. Vehicle economy and emission improvement.
ii. Electric mobility adoption.
iii. Alternative fuel adoption.
iv. Mode shift.

- Malaysia’s outlined goal of achieving a 15% share of electric and hybrid vehicles in the total industry volume (TIV) by 2030.
- National targets: 10,000 units of charging facility by 2025
- Total EV charging stations (as June 2023): 1,063 units
Malaysia National Energy Policy 2022-2040

Targets by 2040

- Urban public transport modal share: 50%.
- Electric Vehicles (EVs) share: 38%
- Alternative fuel standard for heavy transport: B30
- LNG as alternative fuel for marine transport: 25%
National Energy Transition Roadmap (NETR)

• Provides a renewables-centred, sustainable energy pathway towards a high value green economy and identified six energy transition levers namely energy efficiency, renewable energy, hydrogen, bioenergy, green mobility and carbon capture, utilisation & storage (CCUS).

By 2050, the NETR aims to elevate the public transport modal share to reach 60%, accelerate the penetration of EV share to 80% for both two-wheelers and four-wheelers, foster robust EV manufacturing capabilities to achieve 90% local manufacturing, and continue improvements in internal combustion engine (ICE) fuel economy.

Ministry of Transport (MoT) leads the implementation of 2 high impact projects:

1. Electrification of first-last mile public transport and upgrading infrastructure & electrical lines at bus depots for charging, with maintenance, repair and overhaul (MRO) opportunities for local SMEs.
2. Installation of solar photovoltaic (PV) systems for non-traction electricity usage in rail operations such as stations and depots.
National Energy Transition Roadmap (NETR)

NETR Part 1
Identify flagship catalyst projects and initiatives

6 Energy Transition Levers
- Energy Efficiency (EE)
- Renewable Energy (RE)
- Hydrogen
- Bioenergy
- Green Mobility
- Carbon Capture, Utilisation and Storage (CCUS)

10 Flagship Catalyst Projects
- Efficient Switch
- Renewable Energy Zone (RE Zone)
- Energy Storage
- Energy Secure
- Green Hydrogen
- Hydrogen for Power
- Biomass Demand Creation
- Future Mobility
- Future Fuel
- CCS for Industry

NETR Part 2
Establish low-carbon pathway, energy mix and emission target reduction for the energy sector

Energy transition ambition and macro position

Cross-cutting Enablers
- Financing & Investments
- Human Capital & Capabilities
- Policy & Regulation
- Technology & Infrastructure
- Governance
National Energy Transition Roadmap (NETR)

**Policy Initiatives**

**Targets:**

1. Become a carbon neutral country as early as 2050
2. 45% unconditional reduction to carbon intensity by 2030
3. 95 gCO2/km for passenger vehicles by 2030
4. B30 Biodiesel Programmed is planned for implementation by 2030.
5. 20% increase in air transport passengers
6. 10% increase in cargo volume by rail
7. 38% usage of EVs by 2040

**Project Highlights**

- Study on Mode Shift from Road to Rail for Malaysia, including Mode Shift Incentive Scheme
- Installation of EV Charging Stations
- Multi Lane Fast Flow (MLFF) and Weigh in Motion (WIM)
- Installation solar photovoltaic (PV) for rail operations
The Kuala Lumpur Sentral is an example of a successful TOD in Malaysia.

Opened on 16 April 2001, KL Sentral replaced the old Kuala Lumpur railway station as the city's main intercity railway station.

KL Sentral Station is the largest railway station in Malaysia and was designed as an intermodal transport hub.
Application of technologies in achieving low carbon transport

Next Generation Vehicles (NxGV)  Industrial Revolution (IR 4.0)

Mobility as a Service (Maas)  Artificial intelligence (AI)

Big Data Analysis  Autonomous Vehicles

Internet of Things (IoT)
THANK YOU