



MALAYSIA

Deep Transition and Integration of Power and Transport Systems

APEC project EWG 10 2018A
Low Emissions Development Strategies: Supporting the Transition to
Energy-Efficient, Electric-Transport Systems



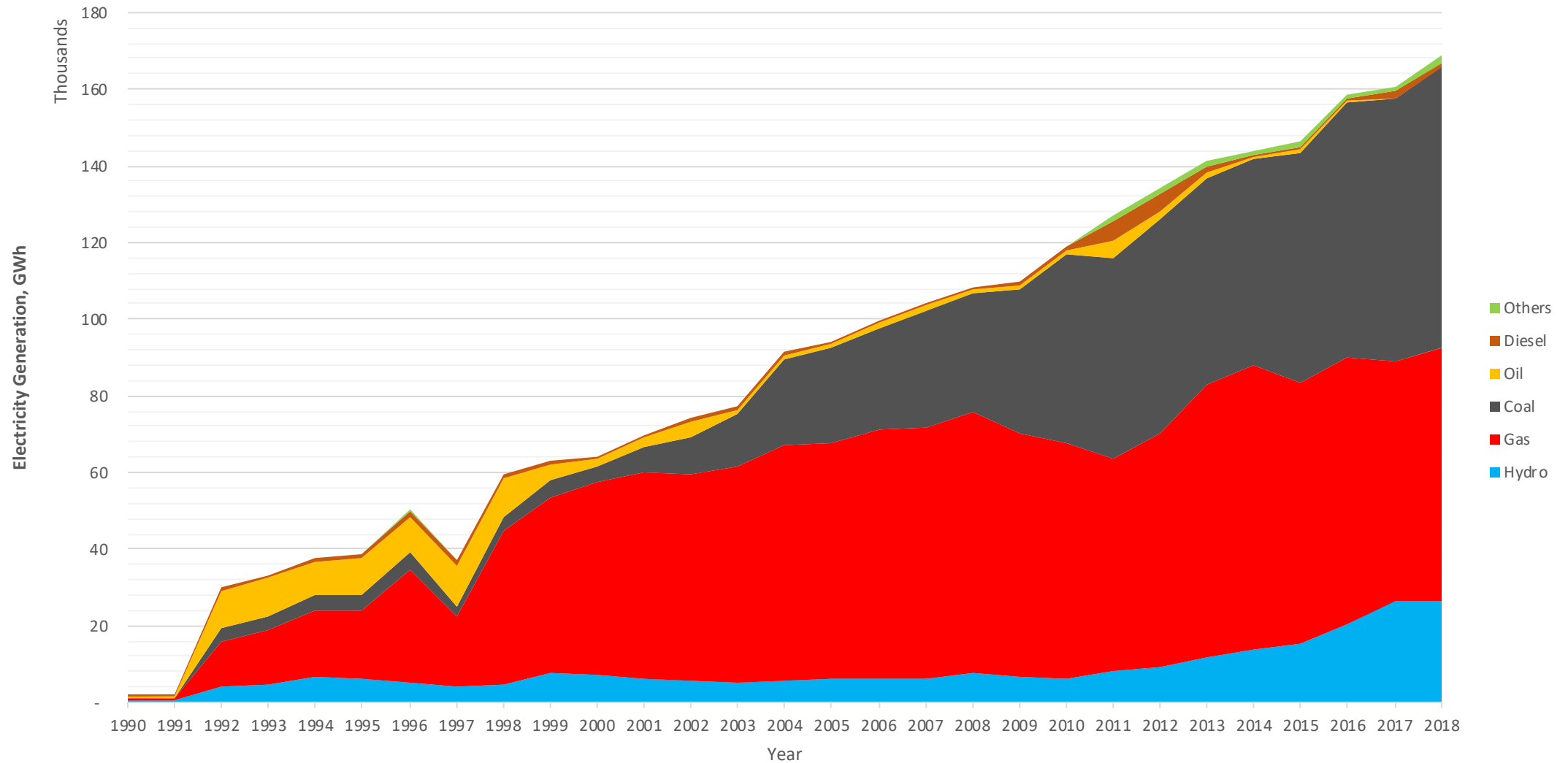
Introduction

- Introductions of economy representative/team members:
 - Mohd Kamal Hisham bin Abu Bakar
 - Principal Assistant Secretary, Road & Land Public Transport Unit, Ministry of Transport, Malaysia
 - Key responsibilities / functions:
 - Road transport law, rules, regulations, new initiatives, projects implementation, disruptive technologies, oversight, coordination, Next Gen Vehicles;
 - Land Public Transportation policy, initiatives, projects, oversight, coordination, planning & development, Electric Bus initiatives.
 - Khairul Anuar bin Mukhtar
 - Assistant Secretary, Energy Sector
 - Ministry of Energy, Science, Technology, Environment and Climate Change, Malaysia
 - Key responsibilities / functions:
 - Energy Policy
 - Electricity Supply Industry

Current status of electricity and transport systems in Malaysia

- Key current trends
 - Electrification of public transportation (also private vehicles) - sustainable goal long term
 - Growth of fossil fuels vs. renewables
- Large scale electric bus application in Malaysia
 - 2020 – 2022 – require comprehensive study and implementation plan/strategy
 - Plan up to 500 buses nationwide.
- National Automotive Policy 2019 – NxGen Vehicles application in Malaysia (electric vehicles)
- Main challenges
 - High infrastructure development costs
 - Coverage of services
 - Requirements on existing power grid supply
 - Limited RE resources
 - Costs of battery
 - Energy Security

Electricity Generation Mix For Peninsular Malaysia

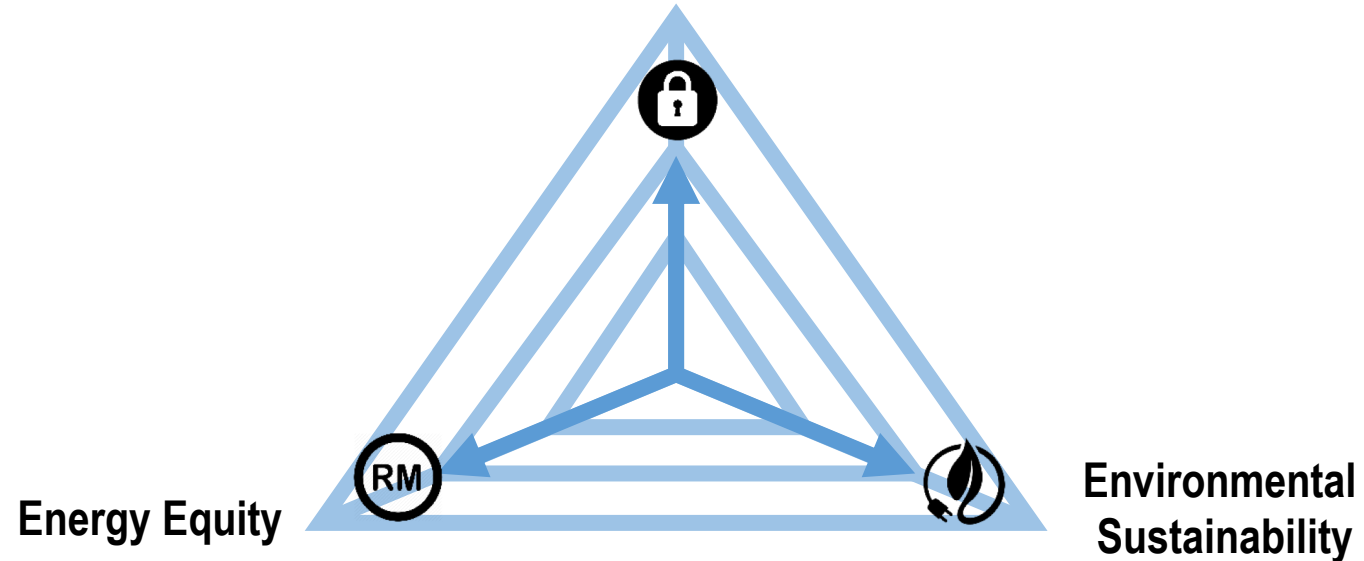


Challenges in Electricity Power Industry



- Reliability LOLE, Reserve Margin
- Diversity HHI

Energy Security



Cost Effective

Optimal Generation Expansion Plan

COP21 Target
2030: 45% Reduction
from 2005 level

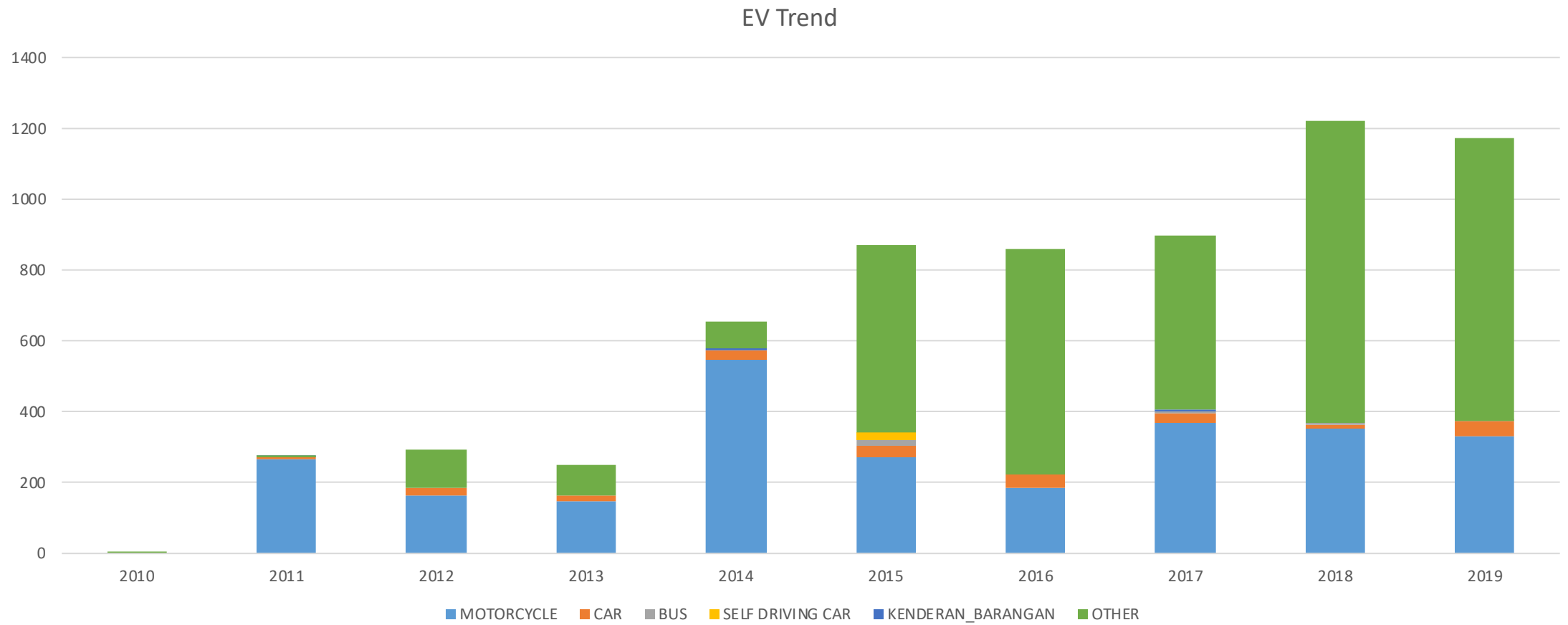
Emission Intensity Target



Vision and goals for sustainable energy and transport

- 20% RE Capacity by 2025
- Energy
 - Feed in Tariff, Net Energy Metering & Large Scale Solar
- No existing pilot projects or concrete policies for electric transport and energy integration
 - soon to be comprehensive study & pilot project for e-bus application in Malaysia (2020)

EV TREND



Setting expectations

- What would really move our economy forward?
 - Need understanding, proper plan, costs, champion, services and technology
- What will make this conference a really valuable use of our time?
 - Learning from other economy on program, challenge and achievement on Sustainable Energy especially to be applied in transport sector
- What am I bringing to the conference?
 - Malaysia experience towards achieving sustainable energy
- What do I expect to take away from it?
 - Experience from other economy on sustainable energy, best practices, expertise, knowledge, tools