



Towards a more Sustainable and Energy Efficient Future

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12th MP Kick-Off Conference

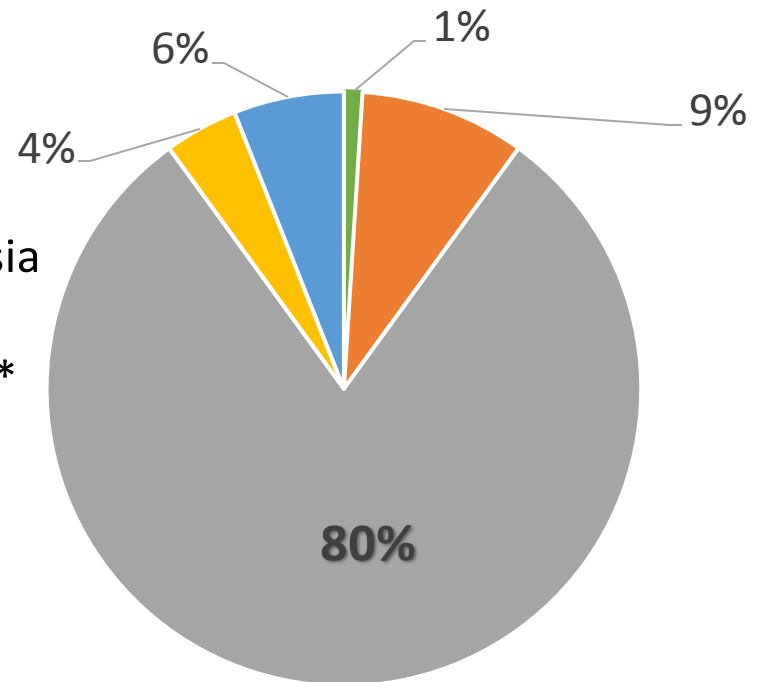
Energy Policy



Malaysia's energy policy is guided by three principle objectives:

- Supply Objective
- Utilisation Objective
- Environmental Objective

Percentages of Greenhouse Gas Emissions by Sector



■ AFOLU-LULUCF ■ Waste ■ **Energy** ■ AFOLU-Agriculture ■ IPPU

- ✓ Energy Sector – most GHG emissions in Malaysia
- ✓ It has grown from **68%** in 2000 to **80%** in 2014*

*Source: INC; NC2; BUR; NC3/BUR2

Our Commitment



- To reduce its GHG emissions intensity by 45% by 2030
 - ✓ 35% on an unconditional basis
 - ✓ 10% condition

Eleventh Malaysia Plan (2016-2020)

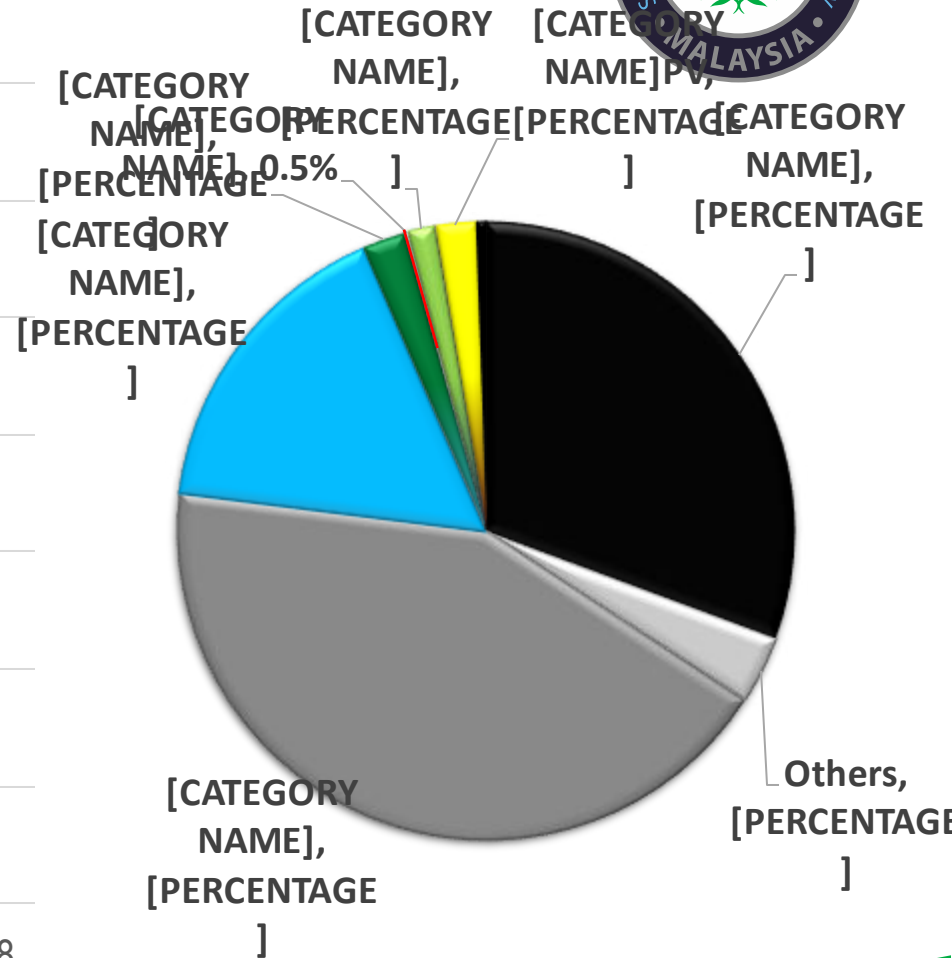
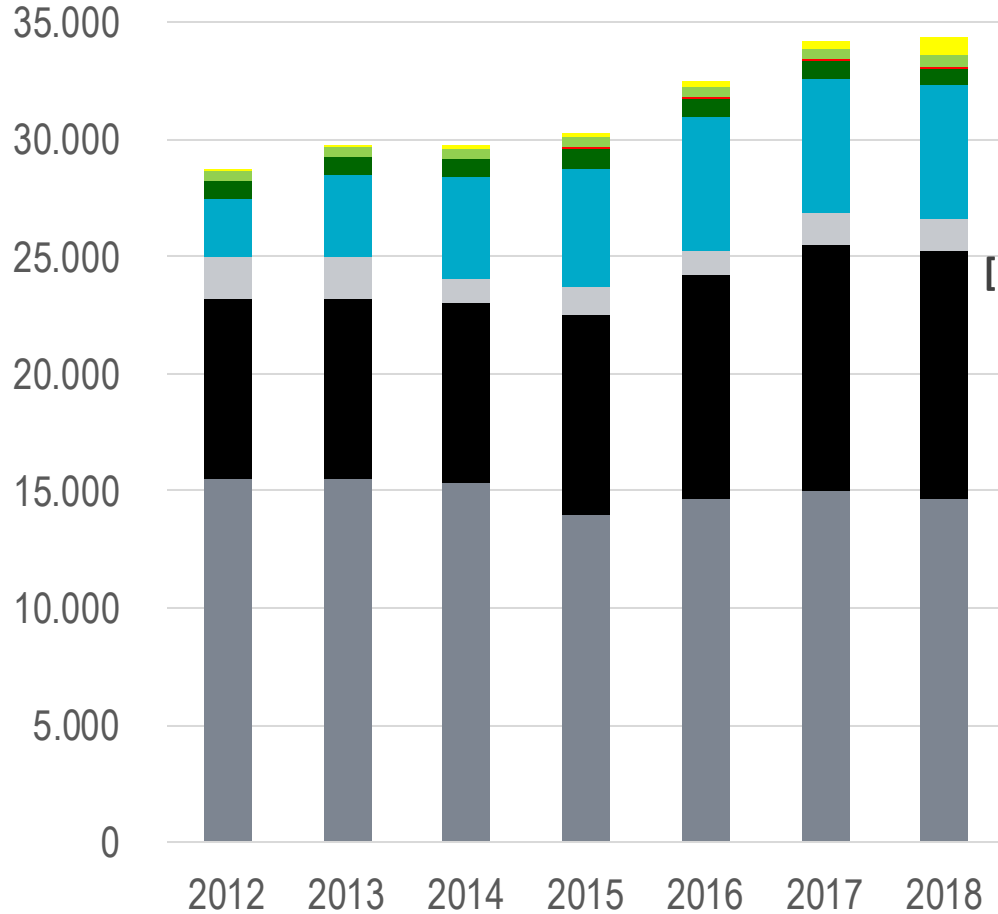
- ❖ focused on reducing dependency on petroleum products
- ❖ mainstreaming environmental considerations,
- ❖ while ensuring reliable, affordable energy and safeguarding energy security
- ❖ The promotion of renewable energy remains a priority for Malaysia
 - ✓ 20% RE mix in the installed power mix by 2025*

***Malaysian definition of this excludes all hydro power plants larger than 100MW.**

MEA 12MP Kick-Off Conference Electricity Generation

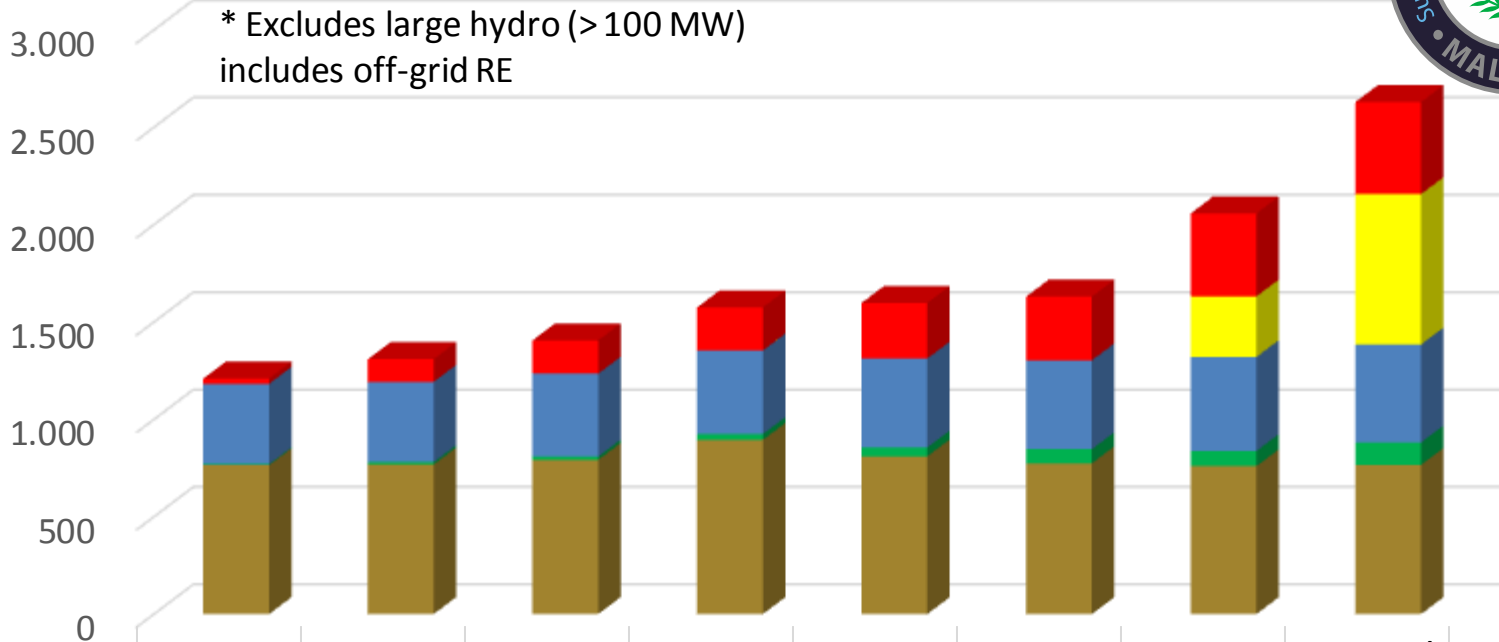


Installed capacity 2012-2018 [MW]



- Natural gas
- Coal
- Others
- Large hydro above 100MW
- Biomass
- Biogas
- Small hydro
- Solar

MEA 1.2MP Kick-Off Conference Cumulative RE Capacity



	2012	2013	2014	2015	2016	2017	2018	2019 *
■ Solar non LSS	27	116	171	221	286	327	426	473
■ Solar LSS	0	0	0	0	0	0	310	772
■ Small hydro	413	413	426	429	456	456	483	503
■ Biogas	5	12	17	30	46	72	78	115
■ Biomass	764	768	792	894	810	775	760	766

■ Biomass ■ Biogas ■ Small hydro ■ Solar LSS ■ Solar non LSS

estimate

RENEWABLE ENERGY TRANSITION ROADMAP (RETR) 2035



To determine the future of electricity system and the RE targets in the electricity mix (up to 2035);

To determine the strategies, comprehensive action plans and resources required to transit to this future of electricity system and achieve the RE targets;

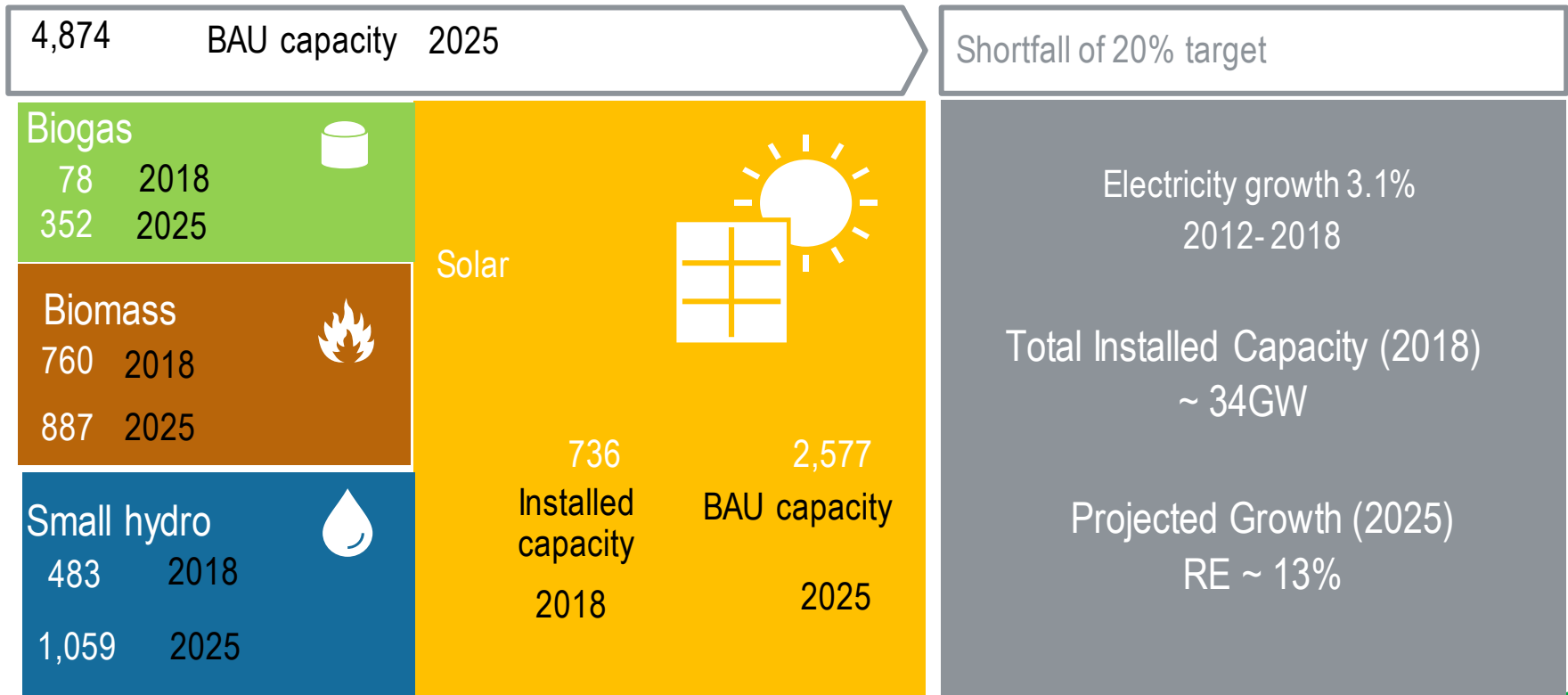
To determine the impact indicators with measurable economic, social, and environmental benefits of the strategies for RE on annual basis until 2035.

MEA 12MP Kick-Off Conference Indications of RETR



In business-as-usual (BAU) scenario:

Current and planned capacity – BAU scenario [MW]



* 2019 estimate

MEA 12MP Kick-Off Conference RMK 11 Initiatives on Energy



➤ Renewable Energy Initiatives

- ✓ 2,080 MW and 3,484 MW RE installation by 2020 and 2030

➤ Energy Efficiency & Conservation

- ✓ 52,233 GWh of electricity savings over 2016 to 2025, 8% electricity demand growth reduction

➤ Conventional Power Plants

- ✓ Advanced Technologies in Coal and Gas Power Plants
- ✓ Fuel mix on energy security and affordability.

*

* 2019 estimate

MEA 12MP Kick-Off Conference
**RMK 12 Initiatives
on Energy**



➤ **Continue, Enhance and Explore RE initiatives via**

- Feed-in-Tariff (inc. RE fund), Net Energy Metering , Large Scale Solar (ground mounted and floating), advanced technologies
- New market initiatives such as Peer-to-Peer and Renewable Energy Certificate
- RE Fiscal Initiatives such as Green Investment Tax Allowance (GITA) Etc.

➤ **Energy Efficiency & Conservation**

- ✓ Incorporate the objectives of the EECA including target setting (Electricity & Thermal)
- ✓ Recognise new initiatives such as Low Carbon Building (LCB) Program and Zero Energy Building

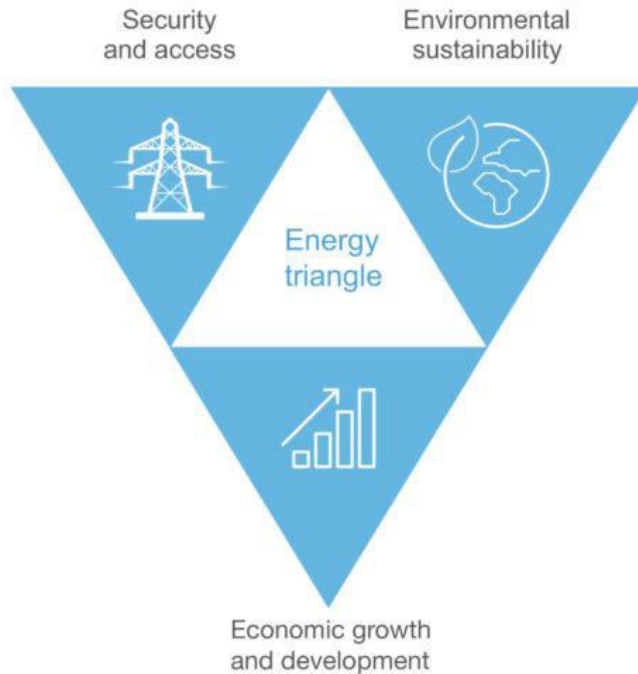
objectives - increase industry efficiency, elect. industry structure reforms and empower consumers.

Energy Transition Index 2019



World Economic Forum's [*Fostering Effective Energy Transition*](#) report

System performance imperatives



Transition readiness enabling dimensions



Places Malaysia :

- ✓ **31** out of 115 countries
- ✓ the highest-ranking emerging and developing country from this region.

Note 1: The Energy Transition Index benchmarks countries on the performance of their energy system, as well as their readiness for transition to a secure, sustainable, affordable, and reliable energy future. ETI 2019 score on a scale from 0 to 100%.



THANK YOU

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