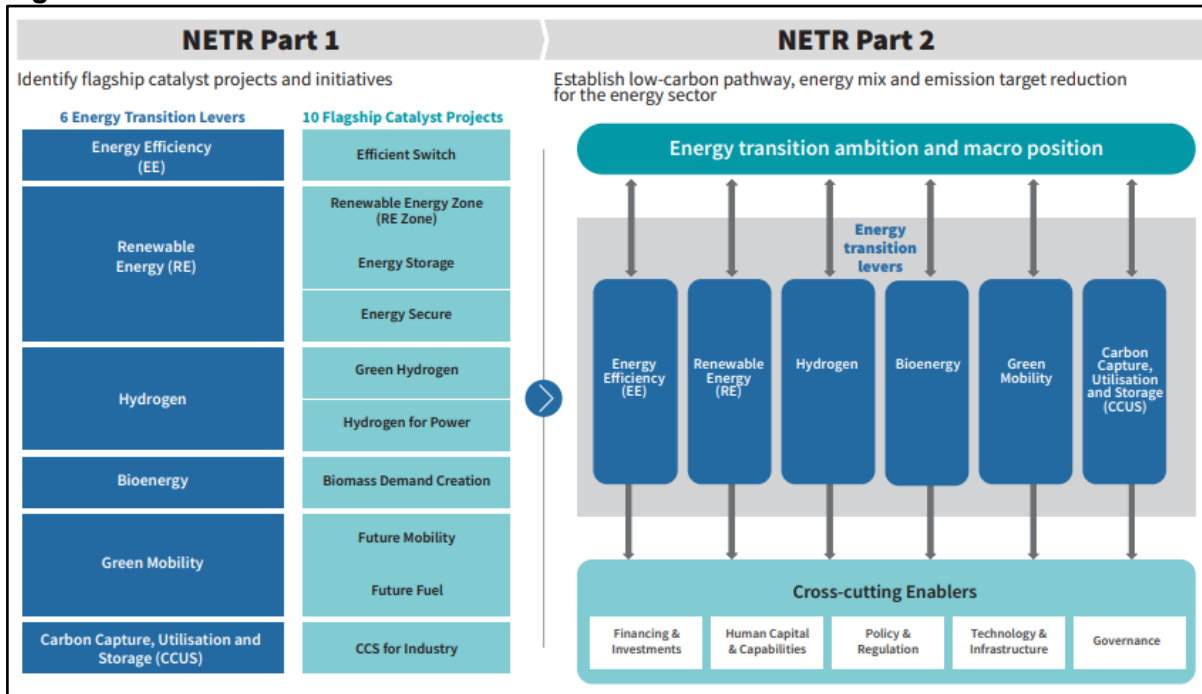


NETR Launch – Steps towards Sustainable Green Economy (Part 2)

In our previous article, we discussed the first stage of the National Energy Transition Roadmap (NETR), which the government introduced on July 27, 2023. The unveiling of the second phase on August 29, 2023, marked a significant step forward in Malaysia's journey towards a low-carbon future. Both two phases are viewed as Malaysia's commitment to transitioning towards cleaner energy, and have the potential to catalyse the development of technical expertise and the generation of employment opportunities within Malaysia's burgeoning green economy.

Figure 1: Parts 1 and 2 of NETR



Source: National Energy Transition Roadmap (NETR)

In the second phase of the NETR, there are 50 outlined initiatives distributed across 6 Energy Transition Levers and 5 Cross-cutting Enables (Figure 1). This complements the initial 10 Flagship Catalyst Projects introduced in Phase 1. It is projected that the successful execution of the NETR will contribute to a continuous annual growth rate (CAGR) of 8.4% in the GDP value from MYR25bn in 2023 to MYR220bn and generate 310,000 jobs in 2050.

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Key initiatives within the NETR framework aimed at facilitating the energy transition process encompass the following:

1. Establishment of a National Energy Transition Facility, with an initial seed fund of RM2bn.
2. Adoption of green and sustainable finance instruments.
3. Implementation of a carbon pricing mechanism.
4. Introduction of complementary policies, including the National Gas Roadmap, Nationally Determined Contribution Roadmap, National ESG Industry Framework, Hydrogen Economy and Technology Roadmap, and the National Biomass Action Plan.
5. Positioning natural gas to support the transition in the energy landscape.
6. Development and deployment of green skills while raising awareness.

Separately, according to Prime Minister Anwar Ibrahim, it is projected that a minimum investment of RM1.2tn will be necessary to facilitate a responsible energy transition from 2023 to 2050. In this decade alone, the government will need to allocate between RM60bn and RM90bn for essential spending such as expanding public transportation, enhancing grid infrastructure, and upskilling the workforce. *Figure 2* and *Figure 3* show some of the long-term targets upon 2050 across the six energy transition enablers. In addition to the commonly mentioned objectives of achieving a 70% renewable energy installed capacity and becoming coal-free by 2050, there are also notable targets concerning Carbon Capture, Utilization, and Storage (CCUS) with plans for 3 to 6 CCUS clusters and a CO₂ storage capacity of 40 to 80 mtpa. Furthermore, there are goals related to hydrogen, including the production of up to 2.5 mtpa of green hydrogen, the establishment of three hydrogen hubs, and 100% green hydrogen feedstock phase off. Additionally, bioenergy goals encompass achieving a capacity of 3.5 bn liters for biofuel production and generating 1.5 GW of bioenergy power. These targets are further detailed with specific milestones to be reached by 2030 and 2040. Additionally, they offer various investment opportunities across different phases of their implementation.

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Figure 2: Targets across NETR’s six energy transition levers

Sector and Key Driver		2040 DTN Low Carbon Nation Asp.	2050 NETR Responsible Transition
EE Energy Efficiency	Industry and Commercial energy efficiency savings (%)	11%	23%
	Residential energy efficiency savings (%)	10%	20%
RE Renewable energy	Coal share of installed capacity (%)	19%	0%
	RE share of installed capacity (%)	41%	70%
HY Hydrogen	Green hydrogen production (MTPA)	N/A	Up to 2.5 MTPA
	Grey hydrogen feedstock phase off (%)	N/A	100%
	Hydrogen hubs (#)	N/A	3
BI Bioenergy	Biofuel capacity (billion litres)	N/A	3.5
	Bioenergy power generation (GW)	N/A	1.4
GM Green Mobility	Urban public transport modal share (%)	50%	60%
	xEV (4W) share of fleet (%)	38%	80%
	E2W share of fleet (%)	N/A	80%
	Light vehicle fuel economy	N/A	~30%
	Heavy transport fuel economy	N/A	~24%
	Biofuel blending for heavy transport (%)	B30	B30
	Hydrogen penetration for heavy transport (%)	N/A	5%
	LNG penetration as alternative fuel in marine transport (%)	25%	N/A
	Green fuel penetration in marine transport (%)	N/A	40%
	SAF blending mandate by 2050 (%)	N/A	47%
CC CCUS	Number of CCUS clusters (#)	N/A	3-6
	CO ₂ storage capacity (Mtpa)	N/A	40-80

Source: National Energy Transition Roadmap (NETR)

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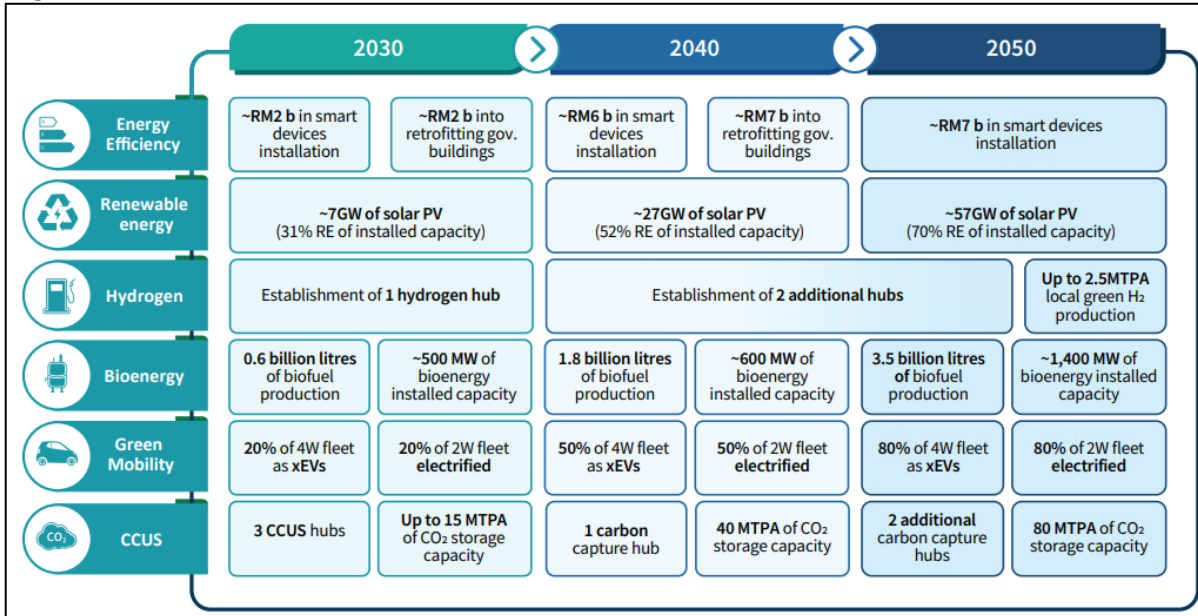
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Figure 3: Potential investment opportunities and impact of NETR's Responsible Transition



Source: National Energy Transition Roadmap (NETR)

Who are the beneficiaries?

In our [previous article](#), we shared that energy giant Tenaga stands to benefit (the most) through a shift to renewable energy and reduced reliance on conventional fuels. Initiatives include collaborative Renewable Energy Zones with SMEs, cooperatives, and hybrid hydro-floating solar systems with a 2500MW capacity. Partnerships with PETRONAS aim to reduce emissions by co-firing green hydrogen and ammonia. Malakoff may benefit from new gas plant expansion in the future following their retirement of existing coal plants. Local solar contractors will gain from the expanding renewable energy sector, while Sime Darby Property plans residential solar solutions in areas like the City of Elmina and Bandar Bukit Raja. For Battery Energy Storage Systems (BESS), there is no clear winner yet, but we notice few listed companies, like Citaglobal and Genetec Technology, formed a JV (Citaglobal Genetec BESS) recently to develop RE power storage solutions.

Our investment portfolio focuses on quality companies that possess strong fundamentals, including stable earnings and a promising future outlook, and are led by capable management teams. Please click on the [link](#) to learn more or email us at phillipmutual@phillipcapital.com.my if you require any further information.

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