

# TENAGA NASIONAL BERHAD

**PRESENTATION TO INVESTOR**

March 2026

*TNB Bukit Selambau, Kedah*

Investor Relations, Group Finance Divisions



TNB is the largest electricity utility company in Malaysia and at the forefront of the country's energy transition

Tenaga Nasional Berhad (TNB)

Sabah Electricity Sdn Bhd (SESB)  
(83% owned by TNB)



Our Presence in Peninsular Malaysia

Holds 48.8% of Domestic Generation Capacity

Our grid network and retail business\* are governed by the Incentive Based Regulation (IBR) framework

Transmission length: 29,519 km  
Substations: 543  
System Minutes: 0.0019 minutes

Distribution Network: 738,028 km  
Substations: 99,374  
SAIDI: 47.88 minutes

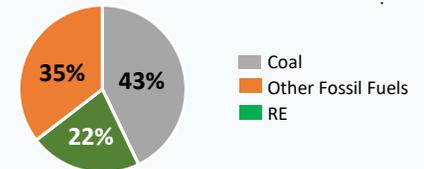
Retail customers: 10.4 mil  
Customer Satisfaction Index (CSI): 87%

\*Data as of December 2024

Group Portfolio

Total TNB Gross Capacity: 21,044MW  
(December 2025)

- Domestic: 17,673MW
- International: 3,371MW



- Notes:
1. RE inclusive of large hydro and small RE
  2. Data is based on gross installed capacity
  3. Solar capacity based on MWp

Main Subsidiaries

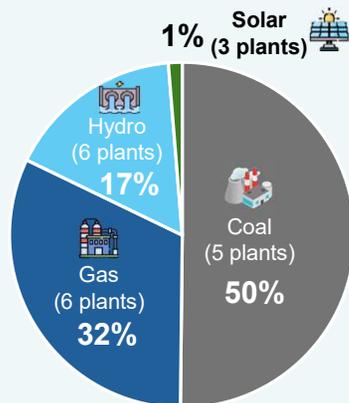


# TNB's generation footprint in Peninsular Malaysia — anchoring 55% of market share

## Generation Portfolio



TNB holds **55%** (15,312MW) of Peninsular gross installed capacity (28,040MW\*)



\* Solar capacity is quoted in MWp



We are also a global player as we strive to future proof our business by expanding our RE footprint and establishing strategic partnerships with leading RE players

### OUR GLOBAL PRESENCE

#### Renewable Assets

**~1.3GW**  
Operational  
RE Capacity

**4**  
Countries

**3**  
Technologies  
Onshore & Offshore wind,  
Solar and Hydro



  
Solar  
**863.0MW**

  
Onshore  
Wind  
**242.8MW**

  
Offshore  
Wind  
**41.5MW**

  
Hydro  
**137.8MW**

#### Services



United Kingdom Ireland



**Equity stake: 100%**  
**806.4MW** Capacity



- 123.9MW in onshore wind
- 275.8MW in solar
- 365.0MW in solar (55% equity)
- 41.5MW in offshore wind (49% equity)



Blyth Offshore Windfarm



Bunkers Hill



**Equity stake: 100%**  
• **120.5MWp** in solar



• ~1GW in wind and solar under  
Dinawan Energy Hub – *under development*



Bomen Solar Farm



**Equity stake: 30%**  
• **256.7MW** in hydro and wind



#### Key projects

##### 1. Operation & Management and Maintenance, Repair & Overhaul :

-  Pakistan • Balloki Combined Cycle Gas Turbine **1,223MW** (O&M)
-  Kuwait • Doha West and Shuwaikh Power Stations (O&M)  
• Sabiya Station-1, Sabiya Station-2& Shuaibah North Power Stations (MRO)
-  Saudi Arabia • Shuaibah Power and Desalination Plant (O&M)

##### 2. Technical Advisory

-  Cambodia • Electricité du Cambodge (EDC) Heavy Fuel Oil Plant of **400MW**



**NON-INDEPENDENT NON-EXECUTIVE CHAIRMAN**  
**TAN SRI ABDUL RAZAK BIN ABDUL MAJID**



**EXECUTIVE DIRECTOR / PRESIDENT / CEO**  
**DATUK Ir. Ts. SHAMSUL BIN AHMAD**

**Senior Independent  
 Non-Executive Director**



**ONG AI LIN**  
 Expertise: Audit &  
 Finance

**Independent Non-Executive Directors**



**DATO' MERINA BINTI  
 ABU TAHIR**  
 Expertise: Accounting



**GOPALA KRISHNAN  
 K.SUNDARAM**  
 Expertise: Law



**JUNIWATI  
 RAHMAT HUSSIN**  
 Expertise: Corporate Planning  
 and Human Resource



**ALAN HAMZAH BIN  
 SENDUT**  
 Expertise: Accounting



**DATO' ZULKIFLI BIN  
 IBRAHIM**  
 Expertise: Engineering

**Non-Independent Non-Executive Directors**



**DATUK RAMZI  
 BIN MANSOR**  
 Ministry of Finance (MOF)



**ROHAYA BINTI  
 MOHAMMAD YUSOF**  
 Employees Provident Fund  
 (EPF)

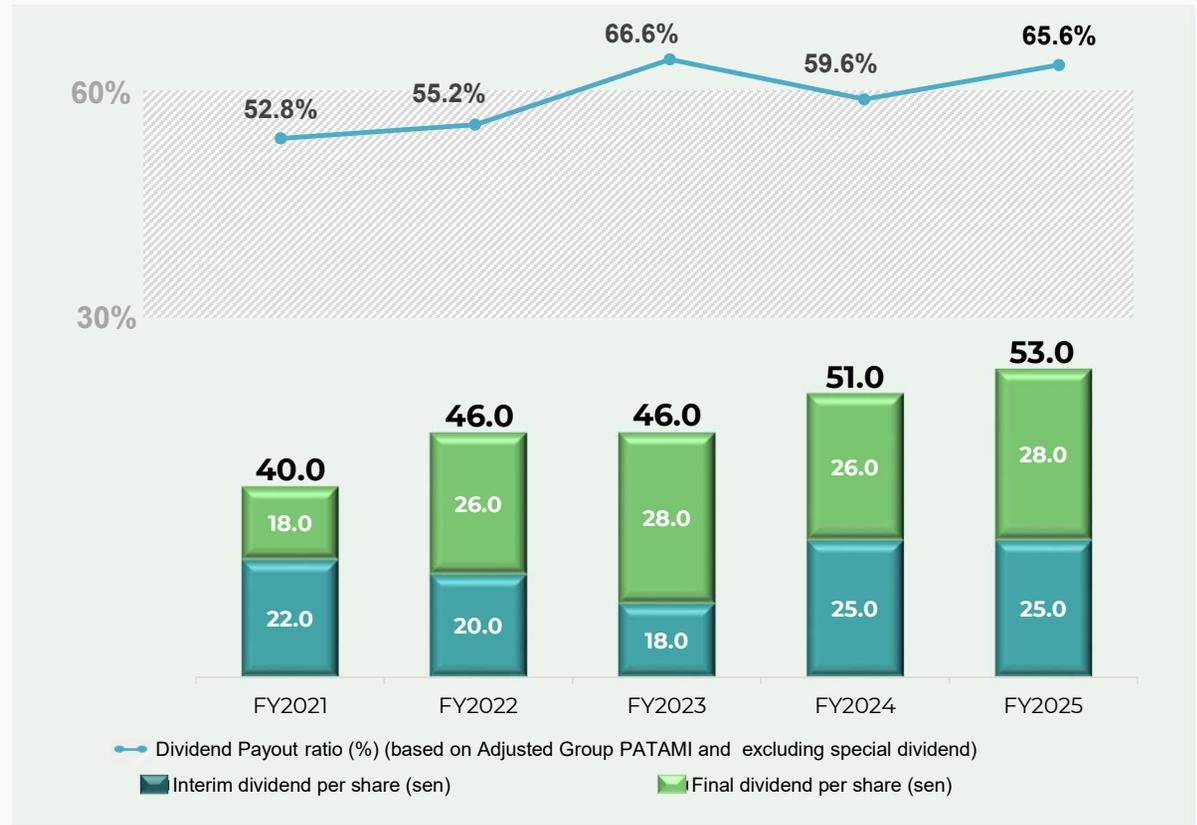


**MUAZZAM BIN MOHAMAD**  
 Permodalan Nasional  
 Berhad (PNB)

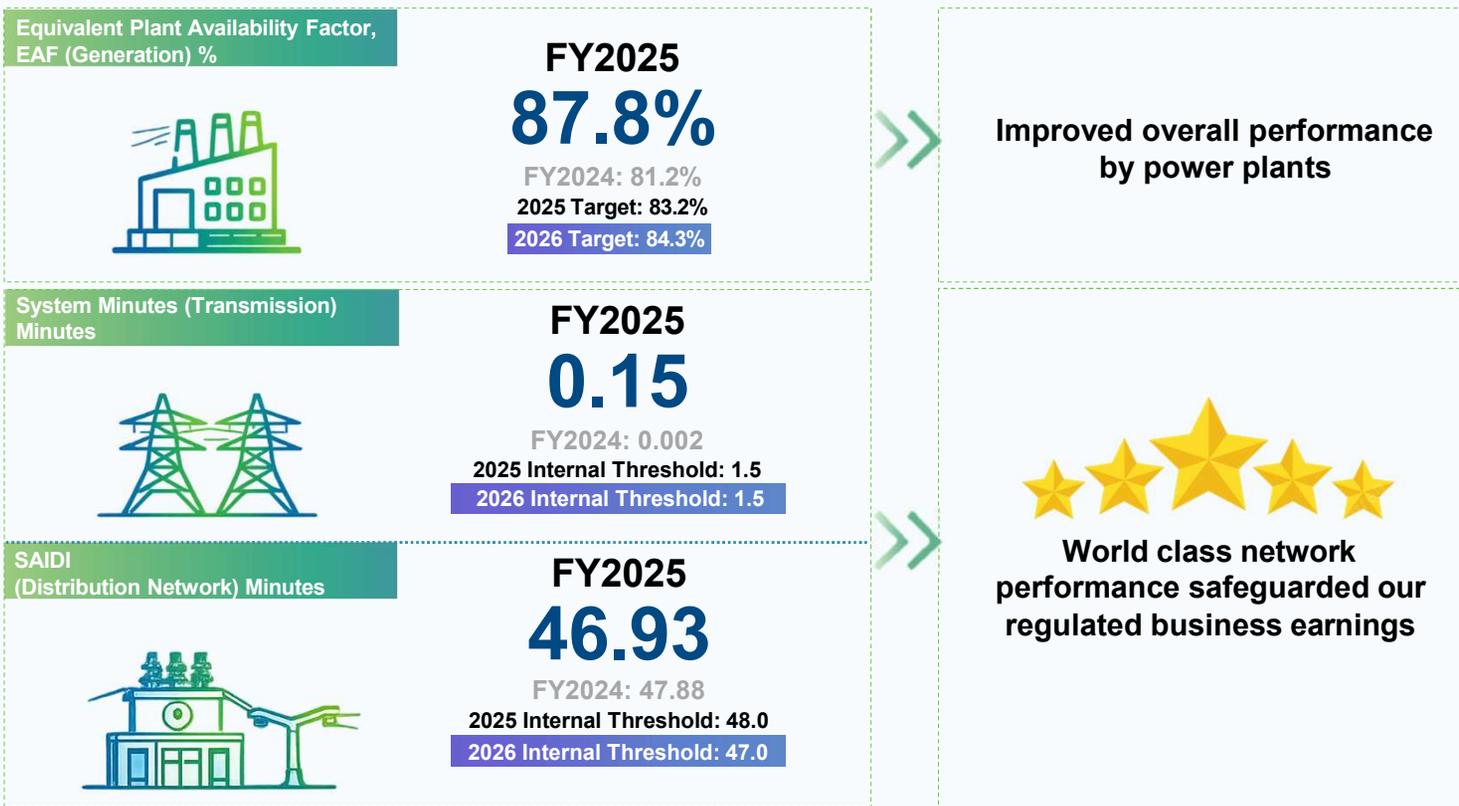
We continue to deliver stable dividend payouts, reflecting our commitment to rewarding shareholders and maintaining prudent capital management

### DIVIDEND POLICY

We will continue to honour our dividend policy of 30% to 60% dividend payout ratio, based on the TNB Group Consolidated Net Profit Attributable to Shareholders After Minority Interest (PATAMI), excluding Extraordinary and Non-Recurring items (adjusted PATAMI)

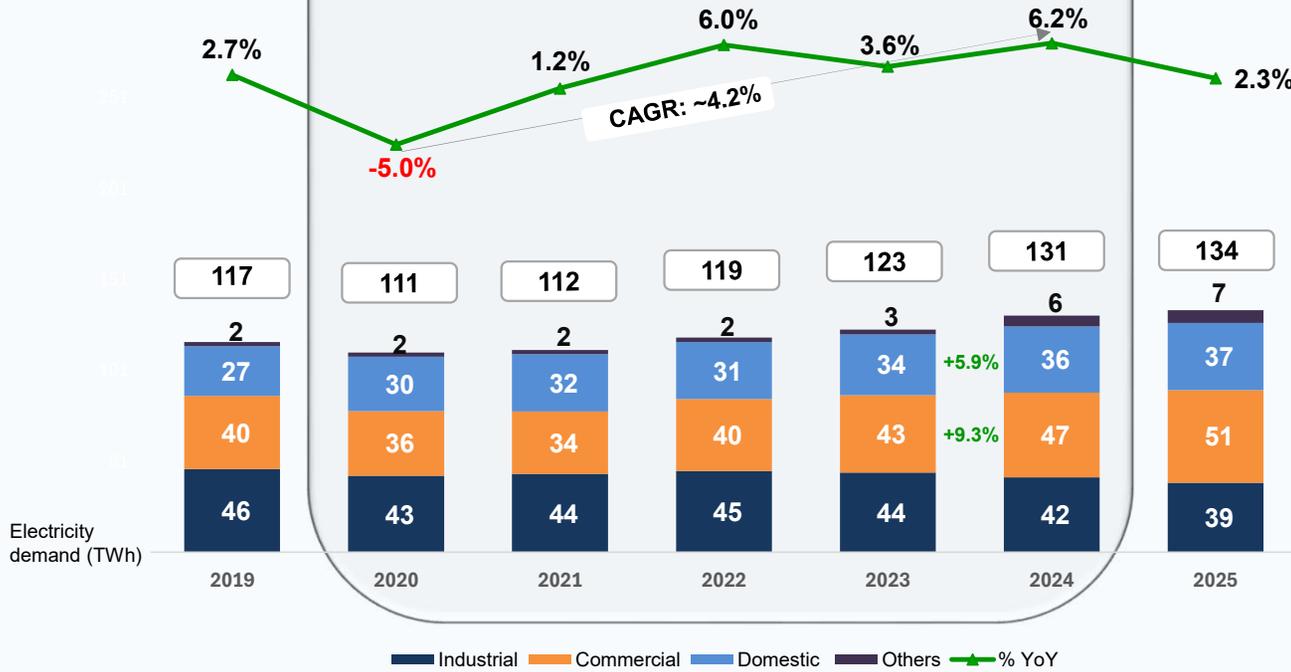


Group earnings supported by: i. Improved generation performance  
ii. World-class network performance



Peninsular Malaysia's electricity demand continued to strengthen, driven by resilient and growing economy

Electricity demand rebounded strongly post-pandemic, recorded 131 TWh in 2024 (the highest level in TNB's history)



2025 – 2027 Outlook

Demand forecast



4.9%

Average annual growth

- 2025: 134,560 GWh @ 4.5%
- 2026: 141,873 GWh @ 5.4%
- 2027: 148,660 GWh @ 4.8%

Our regulated business is governed by the Incentive-Based Regulation (IBR) framework which provides stable returns to the Group while ensuring a more efficient energy sector

### Governed under PPA/SLA/REPPA



Generation

TNB GenCo / IPP / RE Developer

### Regulated Entities under IBR

#### Ring-fenced entities

1

#### Single Buyer



Single Buyer  
Generation  
(Actual Cost)



Single Buyer  
Operations  
(Revenue Cap)

2

Grid System  
Operator  
(Revenue Cap)

3



Transmission  
(Revenue Cap)

4



Distribution  
Network  
(Revenue Cap)

5



Retail  
(Price Cap)

### The IBR mechanism provides:

- Clear and transparent regulatory framework
- Consistent and stable returns
- Shield against uncontrollable swings
- Incentives for operational efficiencies

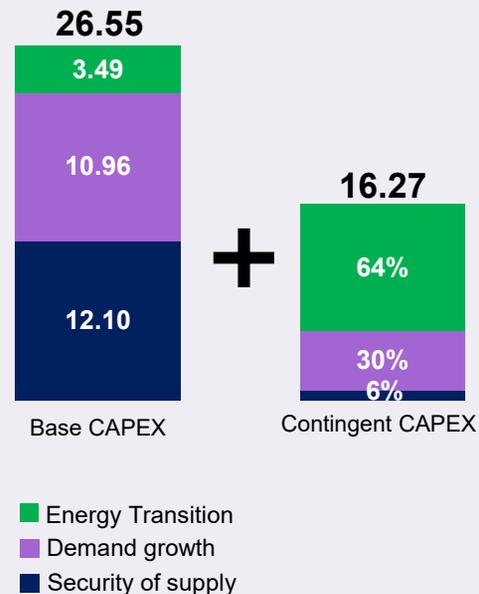
- Regulated business made up more than 80% of the overall Group revenue.
- **Revenue cap:** Allowed annual revenue based on approved demand growth. Any excess/shortfall is adjusted through revenue adjustment mechanism.
- **Price cap:** Any excess/shortfall of revenue made due to higher/lower average selling price compared to base tariff is adjusted through revenue adjustment mechanism.

We have successfully secured our returns at 7.3% and sufficient expenditure allowance for the next 3 years

### Tariff Parameters

	Regulatory Period 3 (RP3)	Regulatory Period 4 (RP4)
<b>Base Tariff</b> (sen/kWh)	39.95	45.40
<b>Average Sales</b> (TWh)	116.8	141.7
<b>Coal price</b> (USD/MT)	79	97
<b>FOREX</b> (RM/USD)	4.123	4.307
<b>Gas price</b> (RM/mmBTU)	T1: RM26 - RM30 (800mmscfd) T2: RM33	T1: RM24 - RM35 (800mmscfd) T2: RM46
<b>OPEX</b> (RM bil)	17.9	20.8
<b>BASE CAPEX</b> (RM bil)	20.6	26.6 <i>(with RM16.3 bil Contingent CAPEX)</i>
<b>WACC</b>	7.3%	7.3%

### RP4 Allowed CAPEX (RM bil)



#### Contingent CAPEX

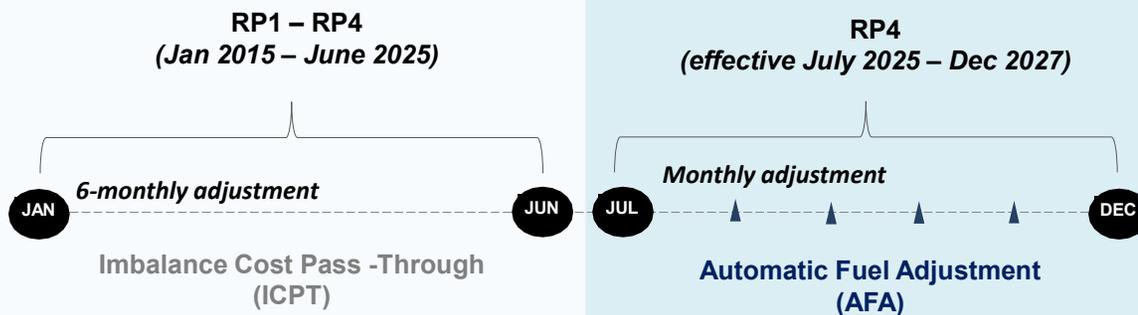
- Investments required to:
  - Maintain security of supply;**
  - Meet potential demand growth** in supporting economic priorities (e.g. data centres and industries); and
  - Facilitate Energy Transition (ET):** Upgrading infrastructures to support RE, NETR and interconnection projects.
- The list of projects has been **pre-approved by the Energy Commission (EC) and will be implemented once triggers occur**. For example:
  - Accelerated ET– Accelerating smart projects related to distribution automation (DA), smart meters (AMI), and investments in EV infrastructure; and
  - Demand growth – New ESA with data centres and robust system for EV charging.
- Revenue recognised in the same year expenditure is incurred (effective FY2025), similar to base CAPEX.
- Entitled for the same regulatory return at 7.3%.

## AFA Mechanism enhances RP4 certainty through timely fuel cost recovery

### Fuel Cost Recovery (2015 – 2027)

*Historical*

*Current*



The AFA mechanism **strengthens transparency** by ensuring customers benefit from **timely adjustments** that **reflect current fuel and generation cost**, supporting efficient price signal.

### Automatic Fuel Adjustment (AFA)

Base tariff + AFA, sen/kWh

Automatic Fuel Adjustment **+10%**

Allowed Generation Tariff **45.40**

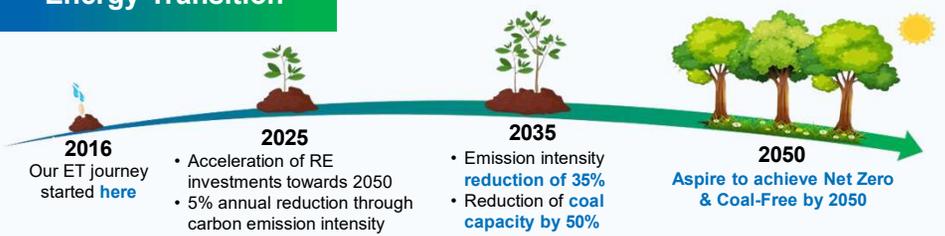
RP4

- ✓ **Monthly mechanism** to recover actual generation costs, reflecting prevailing fuel prices
- ✓ **Automatic adjustment** applies if AFA **does not exceed 10%** of the Allowed Generation Tariff for the prevailing month
- ✓ Any adjustment **exceeding 10%** of the Allowed Generation Tariff for the prevailing month **requires Minister approval**

Source: Guidelines on Electricity Tariff Determination under IBR for Peninsular Malaysia 2025

TNB's long-term strategic priorities are anchored on its aspiration to achieve Net Zero emissions by 2050

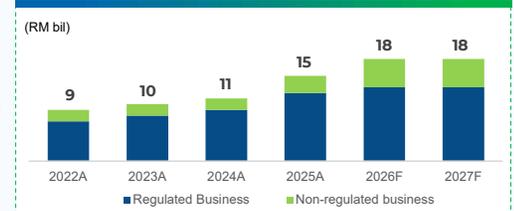
### Energy Transition



National Energy Transition Roadmap (NETR) aims to achieve:

**70%**  
RE capacity target  
by 2050

### Investment Outlook up to 2027



### Deliver Clean Generation



#### Accelerate Generation Decarbonisation

- **Decarbonise thermal fleet** through optimisation and fuel transition while maintaining security of supply
- **Scale renewable energy capacity** in line with national energy transition priorities
- **Advance low-carbon technologies** to support firm and dispatchable clean power (e.g. hydrogen, ammonia co-firing, CCUS, nuclear readiness)
- **Expand renewable portfolio** selectively across priority markets with disciplined capital allocation

### Develop Energy Transition Network



#### Greater System Complexity

**Need for:**

- Flexibility
- Digitalisation
- Advanced system planning

**Evolved to Decentralised Model powered by DER<sup>1</sup>**  
to coordinate the system and safeguard reliability

<sup>1</sup> DER: Distributed Energy Resources

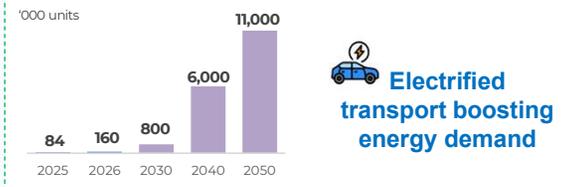
#### Opportunities

- Grid flexibility solutions** • to enable 70% RE penetration by 2050
- Higher energy storage** • to strengthen system stability • 5x100MW of grid connected battery
- Regional interconnection** • Expand from 9 to 18 planned links under APAEC<sup>2</sup> 2026-2030 • 17-25GW power grid potential

### Dynamic Energy Solutions



#### BEV Adoption

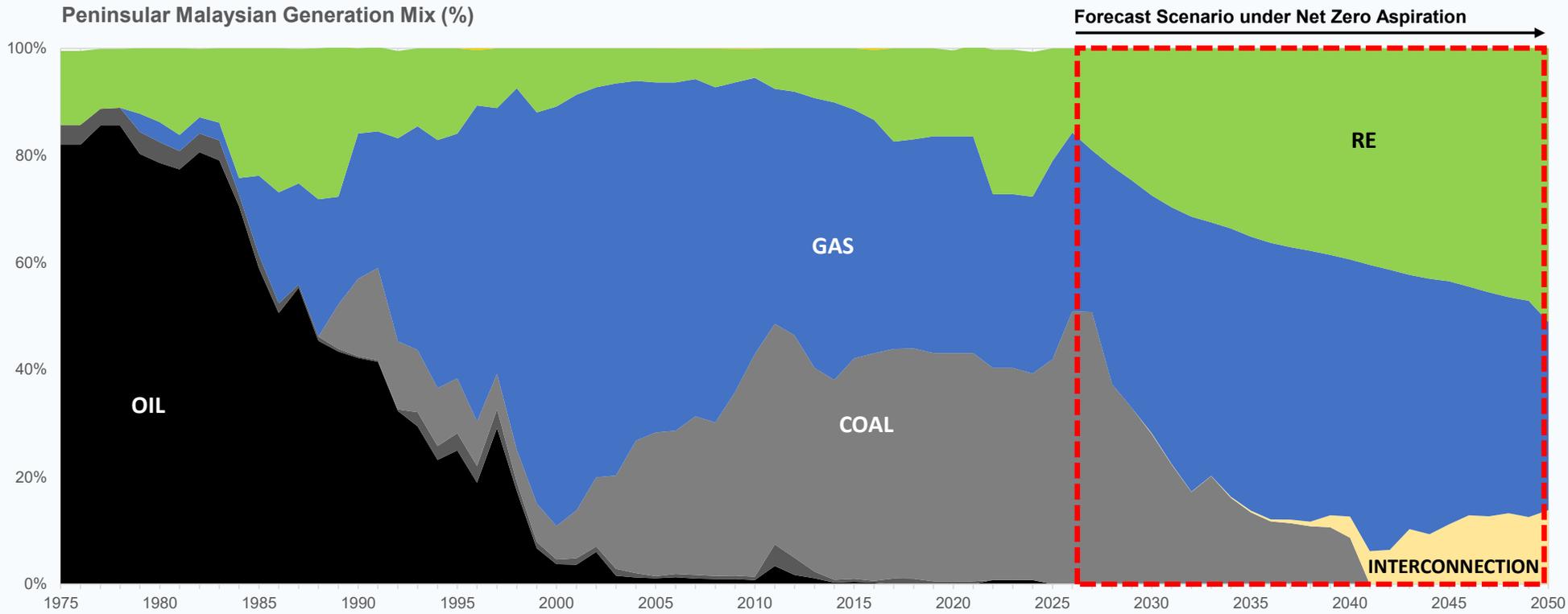


#### Empower Omniumers

- Digital Solutions** • Billing solutions • Platform solutions • Energy efficiency solutions
- Electric Mobility solutions** • Solar rooftop • Energy storage solutions • Green energy attributes

<sup>2</sup> APAEC: ASEAN Plan of Action for Energy Cooperation

The nation's current generation mix reflects the diversification required for security of supply, and will continue to shift as we take a responsible approach towards energy transition



- Historically, Malaysia's generation mix was dominated by the use of oil as we transitioned into gas and then coal
- **Moving forward, RE will grow significantly as costs rapidly decline**

Note: RE includes solar, hydro, biomass, biogas and waste to energy (WTE)



TNB's fast-track sustainability agenda will bring major shifts across the value chain, ensuring business growth while meeting our ESG commitment

Deliver Clean Generation

GenCo aims to capture ~RM40 bil revenue from domestic market by 2050

Fast track decarbonisation

- 1 Coal plants early retirement
- 2 Repowering plants with cleaner fuel and green tech
- 3 Strategic technology partnership

Explore opportunities in ASEAN



- Increase enterprise value and sustainability position of GenCo
- Possibility of an IPO of GenCo

Develop Energy Transition Network

NED aims ~USD7 bil Equity investment by 2050



FOCUS MARKETS



14.3GW by 2050  
(Average portfolio return of 7% – 9%)

Develop Energy Transition Network

Regulated asset base (RAB) to grow to ~RM100 bil by 2050

- Renewable Energy (VRE) and Distributed Energy Resources (DER)
- Propelling growth of transportation and industrial customers electrification
- Reducing carbon footprint and preserving the forestry & natural environment

Regional Interconnection

To strengthen security of supply and open investment opportunities



Potential Earnings by 2050: ~RM7 bil

Dynamic Energy Solutions

We will invest RM90 mil to support BEV ecosystem with the following key strategic moves:

- 1 Build charging infrastructure
- 2 Reskill & upskill workforce
- 3 Lead by example through TNB Fleet electrification
- 4 Sponsor EV-related studies
- 5 Foster coalition among EV sector players

2030 EV Market Potential

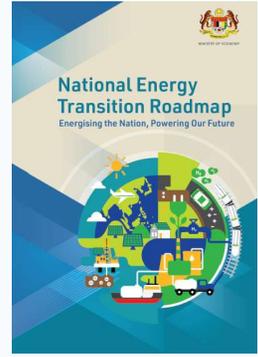


Driving changes in customer behaviour

- myTNB app
  - Targeting >8.5 million subscribers
- Time of Use (TOU) scheme
  - Targeting an additional 150k–200k new customer applications

# The National Energy Transition Roadmap (NETR) aims to shift Malaysia from a traditional fossil fuel-based economy to a high-value green economy

**Responsible Transition (RT) Pathway 2050**  
to shift Malaysia's energy systems from fossil fuel-based to greener and low-carbon systems



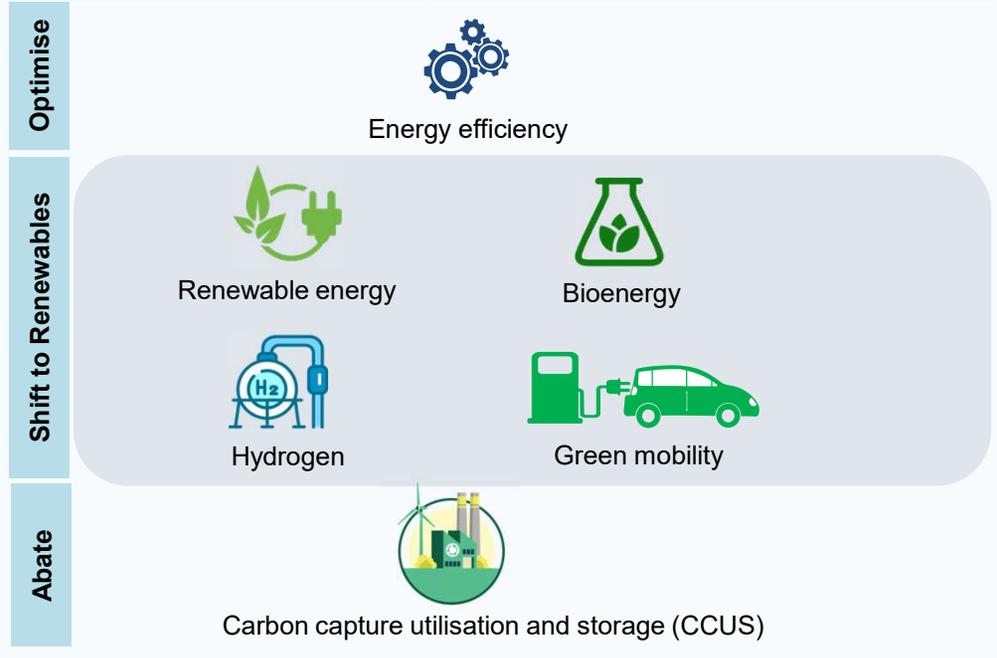
**Aligned with the national aspirations and commitments to sustainable development**

- The **Twelfth Malaysia Plan 2021-2025** which outlines aspirations for the nation to achieve net zero emissions by 2050.
- The **National Energy Policy (DTN)** launched in September 2022 with aspirations to become a low carbon nation in 2040.

**Review of RE policies**

- 1 To increase the country's installed RE capacity from **40% in 2035 to 70% by 2050**;
- 2 To introduce the concept of a **self-contained system according to the "willing buyer, willing seller" principle** to the RE development framework;
- 3 To increase **the installation of solar systems on government buildings**; and
- 4 To allow **cross-border RE trade** through the establishment of an electricity exchange system, complementing the ASEAN power grid initiative.

**NETR Part 1 (6 energy transition levers)**

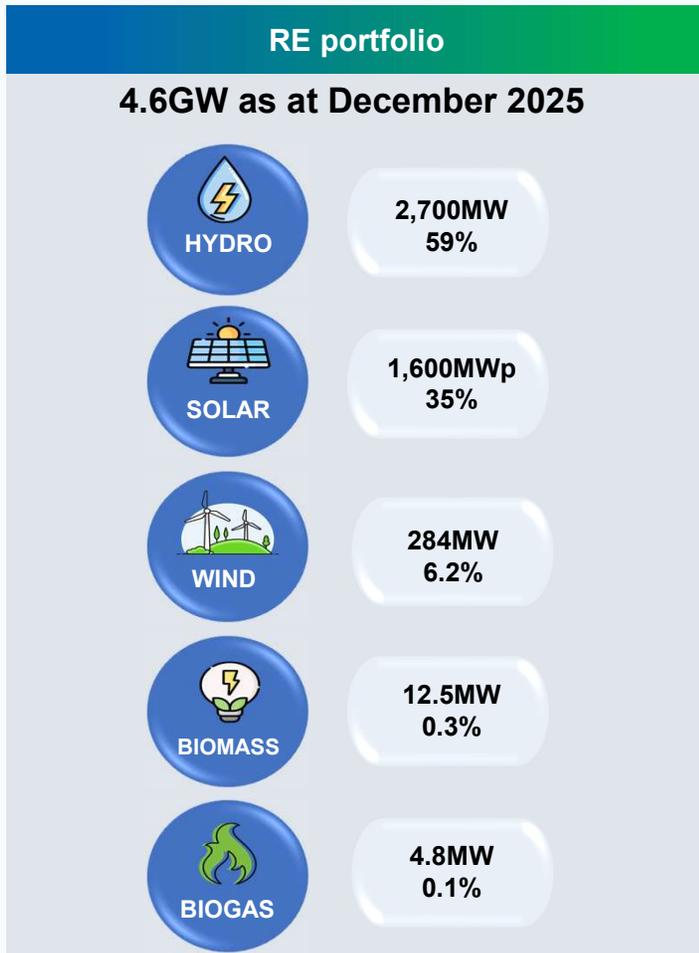


**NETR Part 2 (Focus on biomass, waste-to-energy usage, CCS and hydrogen integration)**

- 1 Establish the National Energy Council
- 2 Set up the National Energy Transition Facility (NETF) with a seed fund of RM2 billion
- 3 Establish and launch a RE exchange in 2024

Note: The NETR was announced in two parts: Part 1 in July 2023 and Part 2 in August 2023

We remain resolute in delivering our RE target capacity of 14.3GW by 2050

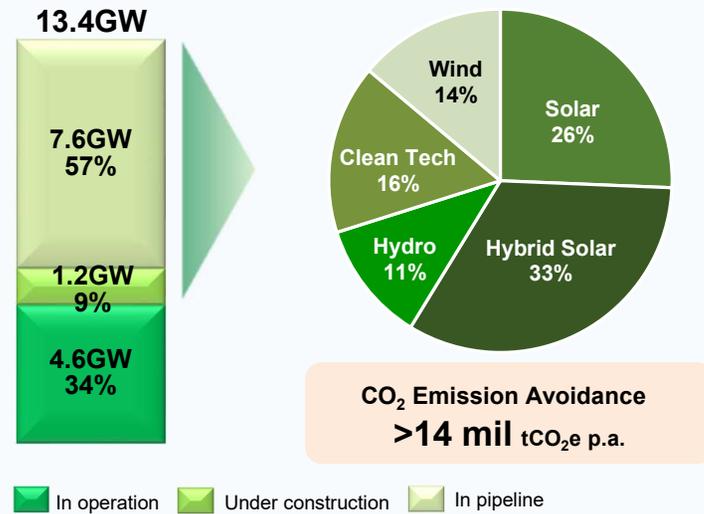


Notes:  
 1. Solar gross capacity is quoted in MWp  
 2. Numbers manually computed will not match due to decimal variance

### Champion for 3 flagship catalyst projects

- Establishment of Large-Scale Solar Parks over 5 sites, each with 100MW capacity,
- Development of Hybrid Hydro-Floating Solar (HHFS) at existing dams with a capacity of 2,500MW, and
- Co-firing of Hydrogen and Ammonia at our power plants.

### 13.4GW Group Secured RE Capacity (as at December 2025)



**CO<sub>2</sub> Emission Avoidance >14 mil tCO<sub>2</sub>e p.a.**

 In operation  Under construction  In pipeline

Note: Exclude SESB

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