

# ANALYST BRIEFING 4QFY2024

3 March 2025 | Business Lounge, TNB Platinum

TNB delivered a resilient 2024 performance, providing sustainable dividends for shareholders whilst positioning us for continued business growth

## PAT



Reported  
**RM4,729.6 mil**

(FY2023: RM2,603.6 mil)

PAT (before forex translation)  
**RM4,237.4 mil**

+46.4% Y-o-Y

(FY2023: RM2,894.2 mil)

Improved financial performance

## Demand Growth



**6.5% Y-o-Y**  
(FY2023: 3.9%)

From increased economic activities

## Achievements



Customer Satisfaction Index (CSI) **87.0%**

Smart Grid Index (SGI) **80.4%**

## Dividend Payout



**59.6% payout ratio**  
(Based on adjusted PATAMI)

**Total dividend: 51 sen**

Final dividend: 26 sen per share  
Interim dividend: 25 sen per share

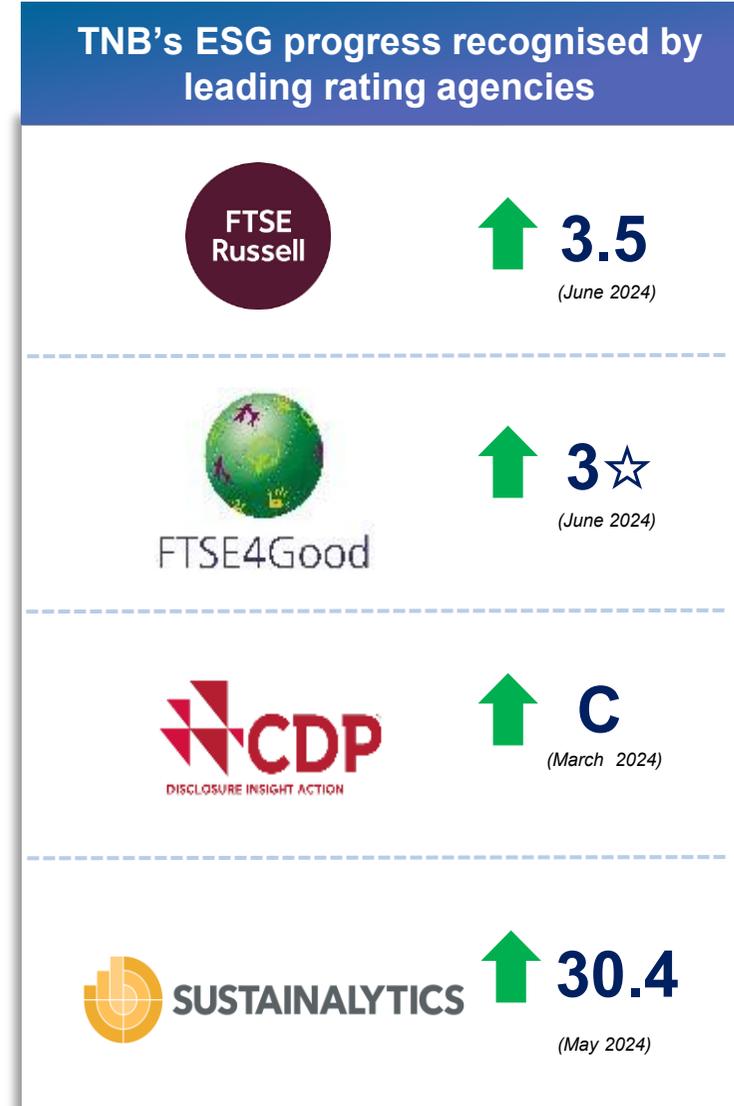
## Gearing



**47.8%**  
(December 2023: 50.3%)

Efficient capital management

## TNB's MSCI ESG Rating upgraded to A, marking our commitment to sustainability



**The Edge**  
**Gold - Best Managed & Sustainable Property Awards**  
**2024 for TNB Platinum**

## 2024 was a positive year, marked by notable achievements and progress as we intensified our strategic initiatives across our businesses



### Deliver Clean Generation

Hydro



Nenggiri Hydro Project (300MW)  
**41% completion**

Sungai Perak Hydro Life Extension Programme (700MW)  
**Issued Notice to Proceed for EPCC contracts**

Hybrid Hydro



Hybrid Hydro-Floating Solar (HHFS) Pilot Project (154kWp)  
**Completed installation at Kenyir Hydro dam**



Solar Greenfield Development (UK) (102MWp)  
**96% completion**



Land Solar



Corporate Green Power Programme (CGPP) (135MWp)  
**Achieved financial close for 1 site (45MWp)**

Centralised Solar Park (750MWp)  
**Signed key agreement for 150MWp under the Corporate Renewable Energy Supply Scheme (CRESS)**

Large Scale Solar 5 (LSS5) & LSS Sabah Programme  
**Awarded as shortlisted bidder (LSS5: 686MWp, LSS Sabah: 23MWp)**



Green Energy Supply via CRESS with Bridge Data Centre (100MW)  
**Signed Bilateral Energy Supply Contract**



### Develop Energy Transition Network



#### National Grid



Regulated and ET CAPEX  
Achieved **100% utilisation** equivalent to **RM8.8 bil, ET: RM3.2 bil**



Smart Meter Installation  
**2024: Installed 949,226 units**  
(To date: 4.5 million out of total 10.4 million customers)



Distribution Automation Penetration  
**2024: Installed at 4,565 substations (Achieved 162%)**



Volt-Var Optimisation (VVO)  
**2024: Achieved 140MVar (100%)**



Penang Bridge Light Project (275kV)  
**Achieved COD on 22 December 2024, transmitting up to 250MW of power**



#### Data Centre Demand

- Cumulative: Secured **38** projects (ESA) with a total maximum demand of **5.9GW**
- 2024: Completed 9 projects** with a total maximum demand of **1.3GW**



#### Regional Business



Regional Power Trade with Singapore's Keppel Electric (100MW)  
**Commenced in September 2024**



Cross Border Power Exchange to Singapore, Sembcorp (50MW RE)  
**First dispatch on 13 December 2024, daily commitment**



### Dynamic Energy Solutions



#### Renewable Energy

GSPARX



Successfully grew rooftop solar projects:

- Cumulative: Secured capacity of **504MWp**
- 2024: Secured additional capacity of 164MWp; commissioned 64MWp**

#### Electric Vehicle (EV)



**ELECTRON**

#### Charge Points

- Cumulative: Commissioned **66** charge points
- 2024: Commissioned 34** charge points

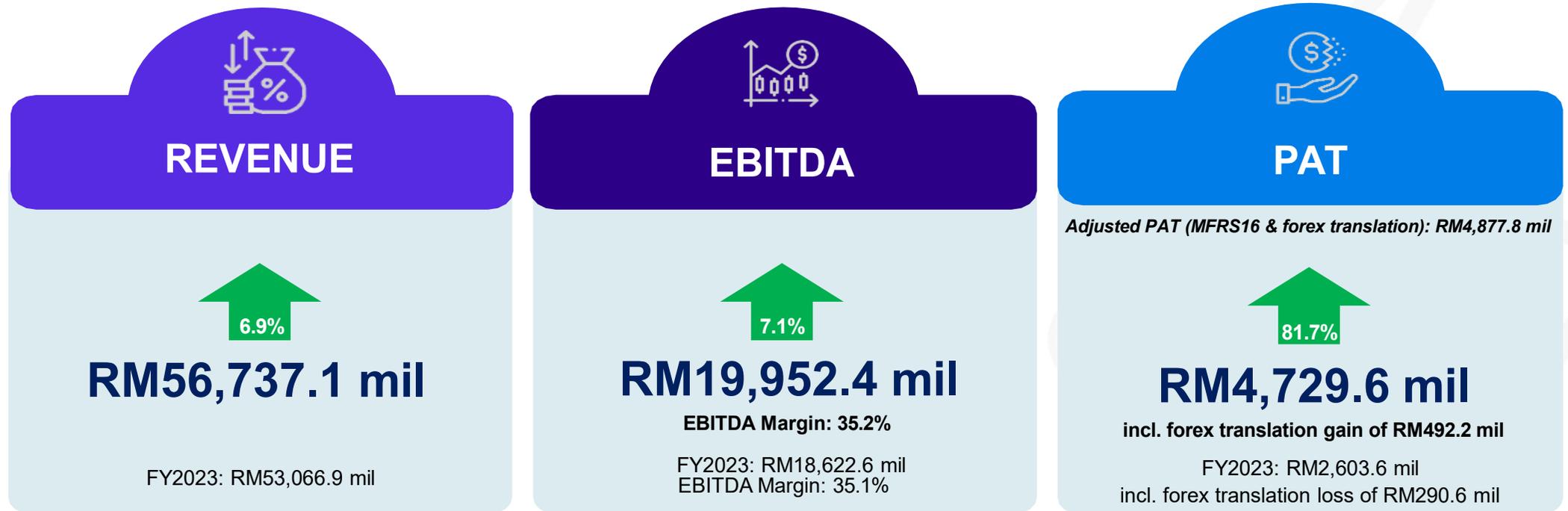
#### Green Lane Supply Connection

- Cumulative: Commissioned **~18MW**
- 2024: Commissioned 58 projects** with maximum demand of **~11MW**

# PERFORMANCE UPDATE



## Higher PAT in FY2024 was driven by improved overall performance

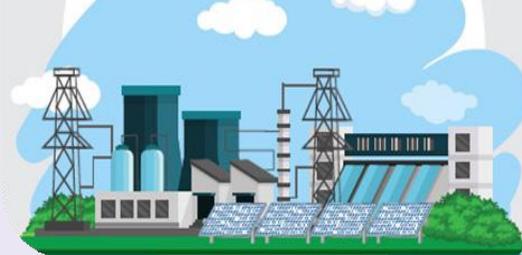


### FY2024 overall performance was driven by:

- i. Stable revenue from regulated business and higher revenue contribution from TNBI operations and subsidiaries. Electricity demand grew at 6.5% driven by increased economic activities, recording highest peak demand of 20,066MW;
- ii. **Stable performance from regulated business;**
- iii. **Improved overall GenCo performance**, attributed to:
  - Lower negative fuel margin of RM153.8 mil (FY2023: RM618.7 mil);
  - Higher availability factor achieved (81.2%) through improved operational performance, recording lower capacity payment loss; and
  - Manjung 4 successfully resumed operations on 5 November 2024.
- iv. Improvement in allowance for doubtful debts was mainly attributed to operational improvement in collection; and
- v. Savings in finance cost of RM233.3 mil (RM4,097.8 mil vs FY2023: RM4,331.1 mil) from repayment of loans and interest capitalisation.

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

Equivalent Plant Availability Factor, EAF (Generation) %



FY2024  
**81.2%**  
2024 Target: 78.6%



Improved overall performance by power plants

System Minutes (Transmission) Minutes

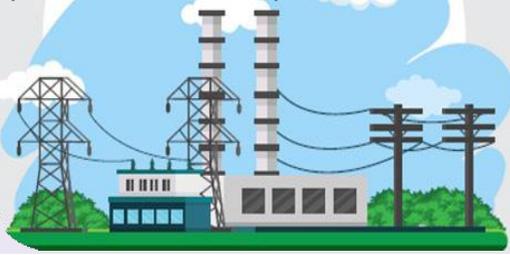


FY2024  
**0.0019**  
2024 Internal Threshold: 1.5



  
World class network performance safeguarded our regulated business earnings

SAIDI (Distribution Network) Minutes



FY2024  
**47.88**  
2024 Internal Threshold: 48.0



Smart Grid Index of 80.4%  
Ranked 11th Top Utilities  
*by SP Group*

## Y-o-Y: Lower receivables driven by improved collection, strengthening our cash flow position and credit rating

Receivables (RM bil)



\*Percentage manually computed will not match due to decimal variance

- **Coal price has stabilised** at 110.17 USD/MT\*\* in December 2024 (127.75 USD/MT\*\* in December 2023).
- **Outlook:** Stabilising fuel prices and strong collection trend will:
  - ✓ strengthen working capital management; and
  - ✓ provide a healthier cash flow position.

1

### ICPT Cost Recovery



Successfully received **RM3.0 bil** out of RM3.4 bil

(ICPT for period January to December 2024, Government portion)

2024: RM1.7 bil  
2025: RM1.3 bil

2

### Strong collection

Strong collection trend with **average collection period of 25 days** (vs December 2023: 31 days), with focus on collecting long outstanding debt

3

### Credit Rating

**S&P Global**

Credit Rating upgraded to **A-** (May 2024)

**RAM**

Affirmed the **AAA/Stable/P1** ratings of Tenaga Nasional Berhad's (TNB or the Group) sukuk programmes (June 2024)

**MARC**

- Assigned "**Gold**" rating to TPGSB's Sustainability Sukuk Framework (July 2024)
- Affirmed Tenaga Nasional Berhad's (TNB) corporate credit rating at **AAA** with a stable outlook (August 2024)

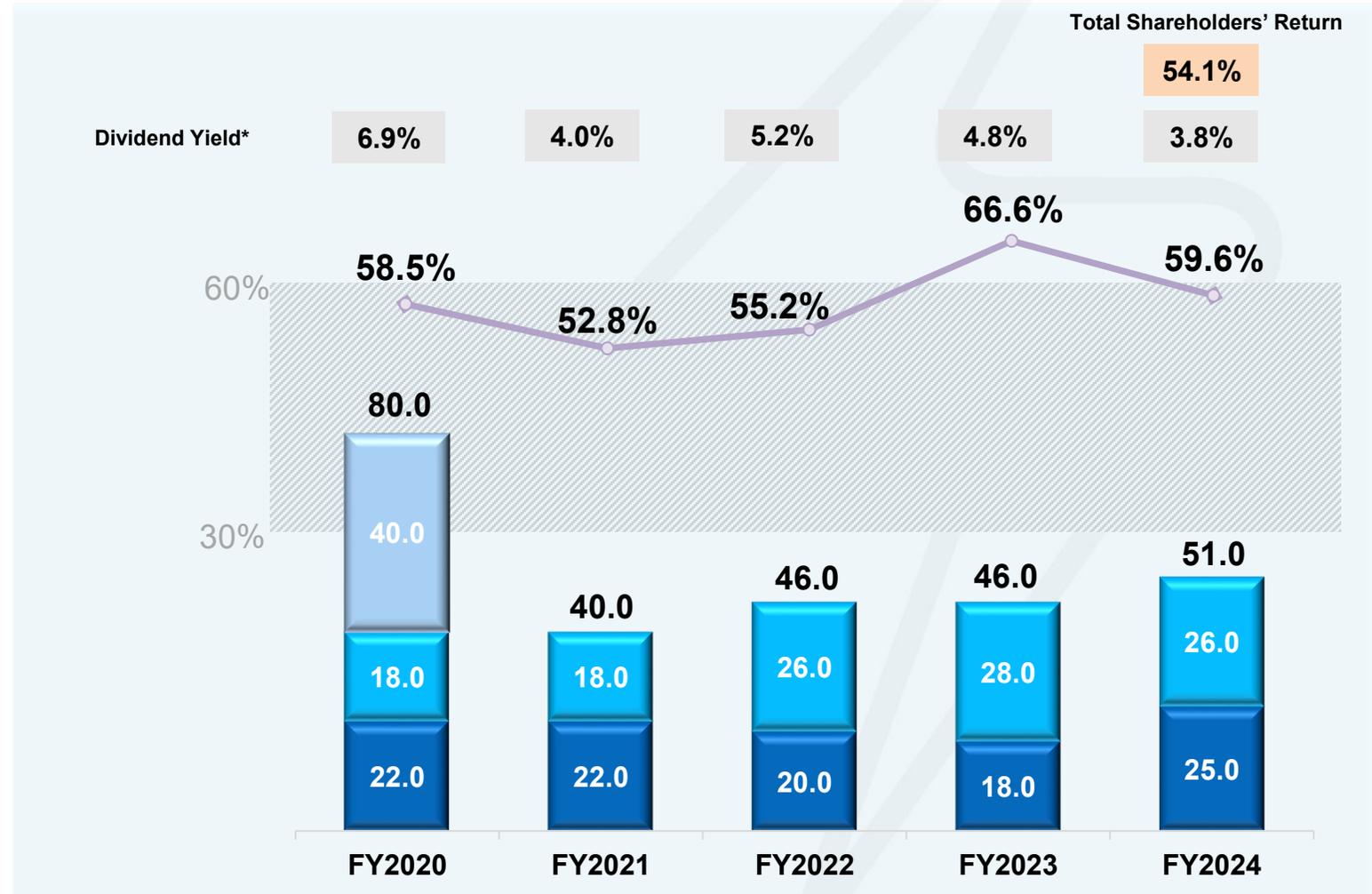
**MOODY'S RATINGS**

Reaffirmed Tenaga Nasional Berhad's (TNB) corporate credit rating at **A3** with a stable outlook (November 2024)

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 reported Consolidated Net Profit Attributable to Shareholders After Minority Interest, excluding Extraordinary, Non-Recurring items



— Dividend Payout ratio (%) (based on Adjusted Group PATAMI and excluding special dividend)  
 ■ Interim dividend per share (sen) ■ Final dividend per share (sen) ■ Special dividend per share (sen)

\*Dividend yield based on VWAP for the year

# 3-YEAR RECAP AND 2025 FOCUS



# TNB has demonstrated resilience and growth throughout the past 3 years, exemplifying leadership in both regulated and non-regulated businesses

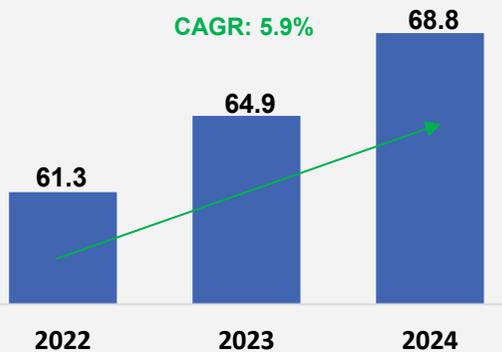
## Regulated Business

- ✓ During the IBR Regulatory Period 3 (RP3), the regulated business contributed positively to the overall Group performance.

### RP3 Performance

- ✓ Total CAPEX spent for 3-year period: **RM 23.6 bil**

Average RoRAB > 7.3%



Actual Regulated Asset Base (RM bil)

## Non-Regulated Business

### GenCo

- ✓ Committed to performance efficiency
  - Manjung 4 successfully resumed operations on 5 November 2024
  - Stabilising coal price moderated the impact of fuel margin

- ✓ Current and Secured Projects:

-  **Nenggiri Hydro Project (300MW)**
-  **Sungai Perak Hydro Life Extension Programme (~700MW)**
-  **Hybrid Hydro-Floating Solar (HHFS) (2,900MWp)**
-  **Paka Repowering (1,400MW)**

### NED

- ✓ Operational capacity: **~1.1GW**



- ✓ Construction and Secured capacity:

**7**  
Total Projects Secured at  
**~2.1GW**  
Total RE Capacity

### GSPARX

  
**2,115**  
Projects  
**388MWp**  
Secured additional RE Capacity

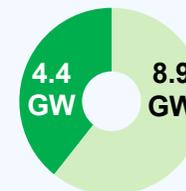
Cumulative as of December 2024:  
**504MWp**  
(3,130 projects)

 **ELECTRIC VEHICLE**  
(Since inception: 2022)

**~18MW**  
Green Lane  
Supply Connections  
**66**  
TNB  
Charge Points

Note: Cumulative as of December 2024

Contributed to growth of RE generation capacity



In operation Under construction, in development and pipeline

**13.3GW\***  
Secured RE Capacity  
(cumulative)

\*Solar gross capacity is quoted in MWp and including rehab

## We have successfully secured our returns at 7.3% and sufficient expenditure allowance for the next 3 years (2025 – 2027)

### Incentive-based Regulation (IBR)



#### IBR framework and ICPT mechanism remain intact

- ✓ ICPT 1HFY2025 approved
- ✓ RP4 approved: Effective 1 January 2025 to 31 December 2027



WACC remained at

**7.3%**

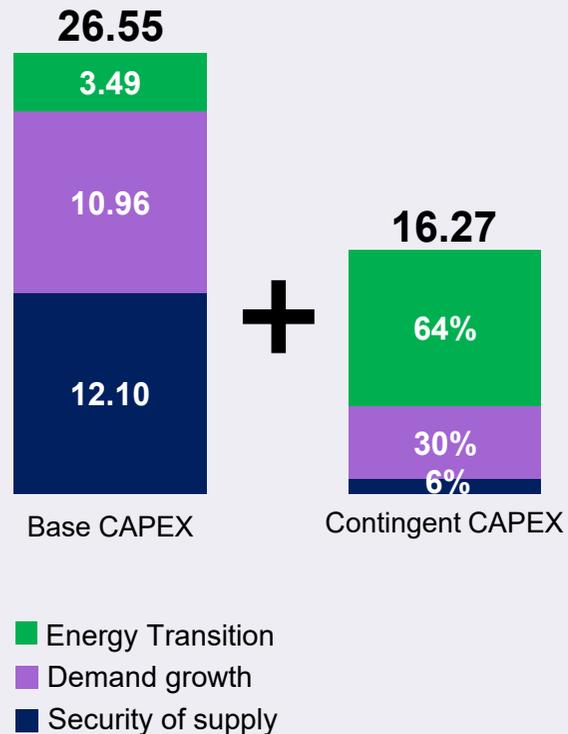


Allowed CAPEX, up to

**RM42.82 bil**

*(Approved CAPEX RP3: RM20.6 bil)*

### RP4 Allowed CAPEX (RM bil)



#### Contingent CAPEX

- Investments required to:
  - a) **Maintain security of supply;**
  - b) **Meet potential demand growth** in supporting economic priorities (e.g. data centres and industries); and
  - c) **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:
  - a) Accelerated ET– Accelerating smart projects related to distribution automation (DA), smart meters (AMI), and investments in EV infrastructure; and
  - b) Demand growth – New ESA with data centres and robust system for EV charging.
- The recovery mechanism is being finalised.
- Entitled for the same regulatory return at 7.3%.

## Our generation business advances towards cleaner energy whilst we continue to enhance operational efficiency

### Enhance Operational Efficiency

Continue to implement predictive measures to enhance reliability and availability:

- **Establishment of Intelligent Predictive Diagnostic Modelling (IPDM)** to detect, diagnose and forecasting emerging equipment failures (avoid unplanned outages and to minimise downtime); and
- Enhancing **outage management strategy** (i.e. RCA & Outage Planning) during major overhauls to minimise Extended Planned Outages (EPO).

Continue to implement enhancement initiatives to **improve thermal power plant efficiency**, aiming to sustain the efficiency at the designed levels including:

- Digital Twin & Real-Time Data (PI Vision)
- Predictive Emission Monitoring System
- Digital Dashboard and Analytic utilising AI & Machine Learning

### Delivery of Projects

#### Hybrid Hydro-Floating Solar (HHFS)

~2,900MWp  
by 2030

COD: 1<sup>st</sup> Phase in 2026  
(min 150MWp)



Pilot floating solar in Kenyir lake

- Construction for 1st phase Kenyir floating solar expected to commence in 2HFY2025
- To obtain Offtaker and CRESS approval for Kenyir, Sg Perak and Nengiri HHFS

To achieve  
**31%**  
1<sup>st</sup> Phase progress completion

#### Nenggiri Hydro Project

300MW

COD: 2QFY2027



- Continue construction works at main dam and powerhouse

To achieve  
**66%**  
Overall progress completion

#### Sungai Perak Hydro Life Extension Programme

~700MW  
by 2033

COD: 1<sup>st</sup> Unit in 2026 (8MW)  
COD: 2QFY2027



- Complete site mobilisation
- Design & Engineering works completed for Chenderoh and 60% for Temengor, Bersia & Kenering
- To award EPCC Contract for Sg. Piah

To achieve  
**20%**  
All units overall progress completion

#### Paka Repowering

1,400MW

COD: 2029



Focus on:

- Complying with requirements of initial Letter of Notice (ILON) which includes collaboration agreement and feasibility study
- Finalisation of high-level agreement with Petronas and Energy Commission (EC)
- Complete OEM and EPC selection

### Brown to Green Initiatives



#### Carbon Capture & Utilisation (CCU)

Substantial installation completion of pilot project to assess CCU technology integration

Pilot project at

**Jimah East Power**



#### Hydrogen

- To complete pilot project at JEP;
- To develop green hydrogen project(s) in Peninsular Malaysia; and
- To establish framework for hydrogen supply chains with identified markets and explore potential joint venture opportunities.

Studies and testing through pilot projects at

**Jimah East Power  
& Kenyir HHFS**



#### Ammonia

Ammonia co-firing demonstration is planned to be conducted at one of the coal-fired power plants to assess its impact to the flue gas parameters with 1% ammonia co-firing with 99% coal.

Co-firing studies and tests at

**Manjung 4 & Manjung 5  
Jimah East Power,**

## Our focus is on developing renewable assets while pursuing growth opportunities domestically and internationally driving TNB's journey towards Net Zero 2050

Projects in Operations	
 	<b>198.9MWp</b>
 	<b>365.0MWp</b>
 	<b>165.4MW</b>
 	<b>275.8MWp</b>
 	<b>120.5MWp</b>

**Total ~1.1GW**

Projects under Construction				2025 Outlook
	Solar Greenfield Development (UK)		<b>102MWp</b>	<b>COD: 2QFY2025</b>
	Corporate Green Power Programme (CGPP)		<b>135MWp</b>	<b>COD: 4QFY2025</b>
<b>Total 0.2GW</b>				

Projects under Development				2025 Outlook
	Centralised Solar Park (CSP) (5 x 150MWp)		<b>750MWp</b>	<b>COD: 2026</b>
	LSS Sabah Programme		<b>23MWp (15MWac)</b>	<b>COD: 2026</b>
	Large Scale Solar 5 (LSS5) Programme		<b>686MWp (500MWac)</b>	<b>COD: 2027</b>
	Vantage Onshore Wind Farm		<b>120MW</b>	<b>COD: 2029</b>
	Spark Renewables	  	<b>300MW</b>	<b>COD: 2029</b>
<b>Total ~1.9GW</b>				

**Legends**

-  Solar farms
-  Onshore wind
-  Battery Energy Storage System (BESS)

Note: Solar gross capacity is quoted in MWp

# OUTLOOK AND FORWARD GUIDANCE



## As we embarked into 2025, we continue to accelerate our key focus areas in fostering business growth while realising our Net Zero ambitions

### Deliver Clean Generation

	<p>Nenggiri Hydro Project (300MW) <b>66% completion (COD: 2QFY2027)</b></p> <p>Sungai Perak Hydro Life Extension Programme (700MW) <b>Design &amp; Engineering works completed for Chenderoh and 60% for Temengor, Bersia &amp; Kenering</b></p>
	<p>Hybrid Hydro-Floating Solar (Kenyir) (150MWp) <b>Commencement of construction works by 2HFY2025</b></p>
	<p> Solar Greenfield Development (UK) (102MWp) <b>Achieve COD in 2QFY2025</b></p> <p> Corporate Green Power Programme (CGPP) (135MWp) <b>Achieve COD in December 2025</b></p> <p>Centralised Solar Park (750MWp) <b>Achieve financial close and Commence construction</b></p> <p>Large Scale Solar 5 (LSS5) &amp; LSS Sabah Programme <b>Achieve financial close and Commence construction (LSS5: 686MWp, LSS Sabah: 23MWp)</b></p>
	<p><b>New opportunities</b> Large Scale Solar Programmes (e.g. LSS5+ and LSS6)</p>

- Continue to:
- **Grow RE portfolio**
  - **Focus on plant performance enhancement programmes**
  - **Invest in green technologies as part of our Energy Transition journey**

### Develop Energy Transition Network

Regulated CAPEX of ~RM10 bil +, with >40% Base CAPEX on ET projects

#### Facilitate RE Growth

Enhance network capacity to support RE growth >4,400MW (LSS5 & LSS5+, BESS)

Establishment of 500kV overhead lines and substation to cater DC growth in Johor

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#### Enhance Reliability of System

Execution of key projects

-  Smart Meter **360,000 units** to be installed
-  Distribution Automation (DA) at **4,026 substations**

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#### Data Centre Demand

<b>5</b> Projects to be completed	<b>~1.3GW</b> Additional total maximum demand
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- Strengthening the Grid as an enabler for investment in ASEAN green generation:
- **Advancing electrification for transportation, commercial and industrial customers** through enhanced grid capacity and connectivity
  - **Spurring growth of Variable Renewable Energy (VRE)** through improved grid flexibility and regional interconnections
  - Starting to engage ASEAN countries for ASEAN Power Grid

### Dynamic Energy Solutions

#### GSPARX

**100MWp** >> **604MWp**

Additional Secured Capacity      Cumulative Secured Capacity

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#### Electric Vehicle (EV)

**250**      Additional TNB Charge Points

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**~8MW**      **209**

Connections to be completed      No. of applications in Pre-consultation

- Shaping and enabling customers to adopt a sustainable lifestyle:
- **Energy efficiency and myTNB App**
  - **Enhance customer experience**

## We strive to achieve sustainable business growth while building a brighter and greener future



**Electricity Demand**

Demand growth is projected to be **3.5% - 4.5%**

Projected GDP between 4.5% - 5.5%



**Group CAPEX Forecast**

**Total Group CAPEX:**

**~RM18 bil + Contingent CAPEX**

Regulated CAPEX: ~RM10 bil +  
Non-regulated CAPEX: ~RM8 bil



**Capital Management**

- Active capital allocation with strong financial position to raise funds for growth
- Proactive working capital management in current elevated fuel prices environment, given the certainty of ICPT mechanism



**National Energy Transition Roadmap (NETR)**

- Ensuring business growth as we pursue RE growth in supporting the NETR and becoming a leading provider of sustainable energy solutions
- Initiating strategic engagements with ASEAN countries to foster collaboration for ASEAN Power Grid (APG).



**Sustainability**

Towards achieving 'AA' ESG rating



**Delivering Value to our Shareholders**

We will continue to honour our dividend policy of 30% to 60% dividend payout ratio

# Appendix

## FY2024

- *Details on Strategy Development*
- *Details on Financial Results*
- *Generation Business Performance*
- *International Business Performance*
- *Shareholdings*



## We strengthen our commitment to cleaner generation by advancing steady progress in our renewable energy portfolio

Projects			4QFY2024 Key Achievements
<b>GenCo</b> 	Hybrid Hydro-Floating Solar (HHFS) <i>Kenyir Hydro dam (1<sup>st</sup> phase)</i>	~2,900MWp by 2030	COD: 2026 (150MWp)
	Sungai Perak Hydro Life Extension Programme	~700MW by 2033	COD: 1st unit 2026 (8MW)
	Nenggiri Hydro Project	300MW	COD: 2QFY2027
	Paka Repowering	1,400MW	COD: 2029
	Co-firing of Hydrogen & Ammonia		
<b>NED</b> 	Solar Greenfield Development (UK)	102MWp	COD: 2QFY2025
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**Hybrid Hydro-Floating Solar (HHFS)**  
Completed installation of pilot project at Kenyir Hydro dam



Achieved 96% completion

Achieved financial close for 1 site (45MWp)

Signed key agreement for 150MWp under the Corporate Renewable Energy Supply Scheme (CRESS)

Awarded as shortlisted bidder

Awarded as shortlisted bidder

## We have successfully utilised the approved RP3 CAPEX, bolstering our confidence to deliver on our RP4's commitments

### FY2024 Key Projects

**Smart Meter Installation progress:**



**158%**

Installed **949,226 units**

FY2024 Target: **600,000 units**  
 Cumulative Installed to date: **4,498,715 units**  
 FY2025 Target: **360,000 units**

**Distribution Automation Penetration progress:**



**162%**

**4,565 substations**

FY2024 Target: **2,812 substations**  
 Cumulative to date: **32,905 substations**  
 FY2025 Target: **4,026 substations**

**Volt-Var Optimisation (VVO) progress:**



**100%**

Achieved **140MVar**

FY2024 Target: **140MVar**  
 Cumulative Achieved to date: **890MVar**  
 FY2025 Target: **60MVar**

**CAPEX**



### FY2024 Utilisation

**Regulated CAPEX**

**>100%**  
 utilisation equivalent to

**RM8.8 bil**

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**Energy Transition (ET) CAPEX**

**RM3.2 bil**

**Smart Grid Utility**

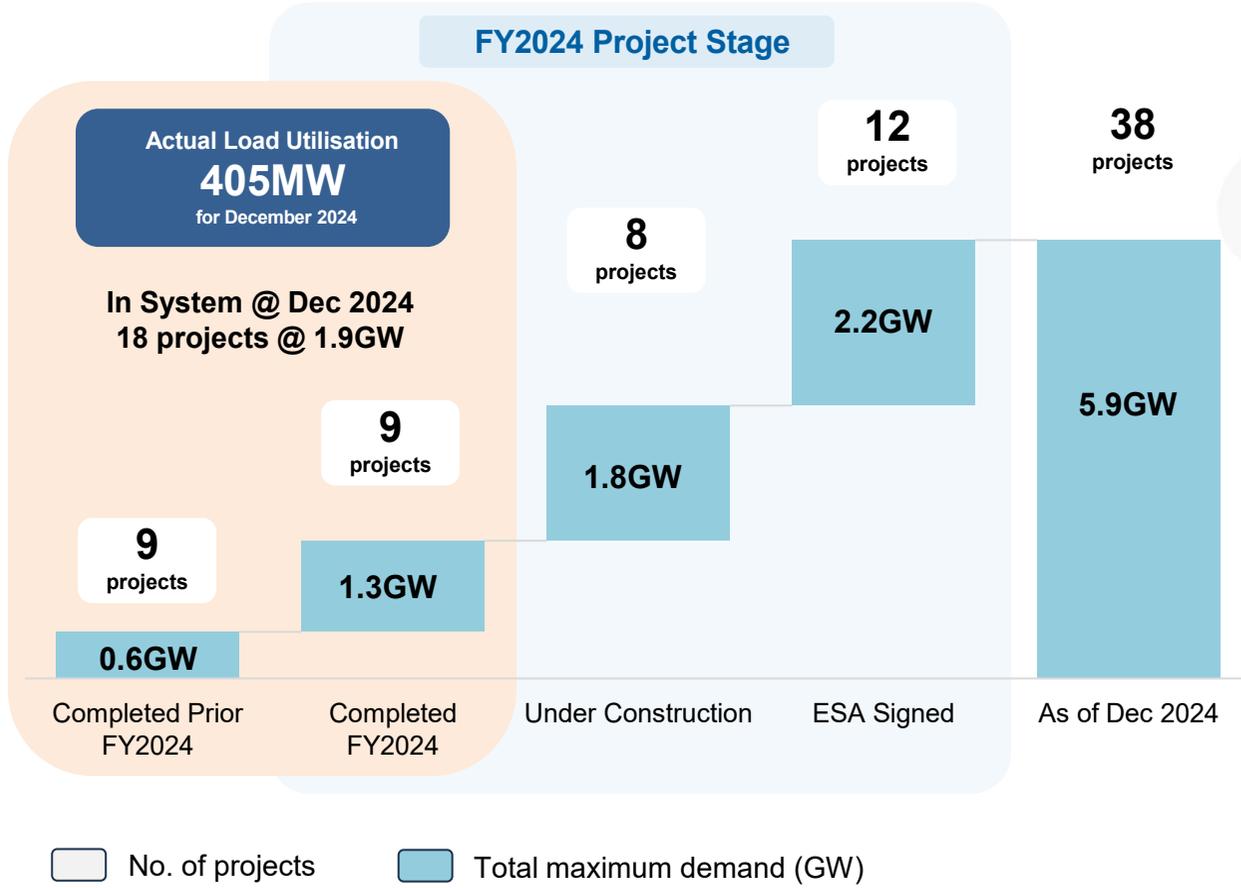


**80.4%**

**FY2024 Smart Grid Index (SGI)**

## TNB remains committed to meeting energy needs, driven by strong demand for energy from data centres

### FY2024 Data Centres Achievements



#### 4QFY2024 Key Highlights



**October 2024:** Signing of ESA and MOU between TNB and GDS Ceremony showcased TNB's commitment in providing electricity supply and renewable energy solutions via Green Lane Pathway and One-Stop-Centre (OSC) for Data Centre.

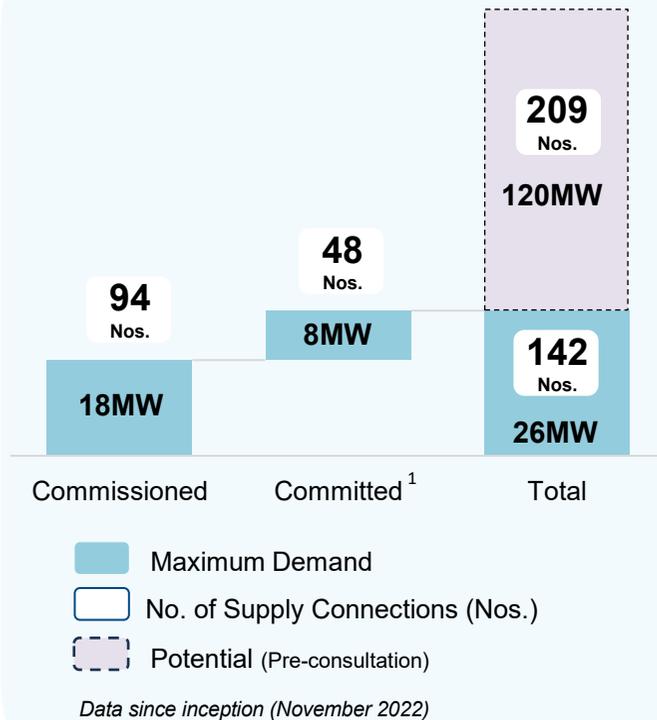


**December 2024:** Signing of ESA at 400MW and Bilateral Energy Supply Contract (BESC) under Corporate Renewable Energy Supply Scheme (CRESS) at 100MW between TNB and Bridge Data Centre (BDC), our first corporate customer under CRESS framework.

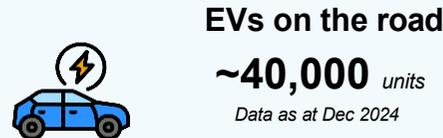
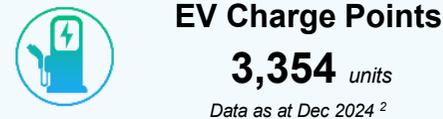
## TNB plays a key role in advancing Malaysia's EV market by installing EV chargers and supplying electricity infrastructure to Charge Point Operators (CPOs)

### EV Ecosystem

#### Green Lane Supply Connections



#### YTD Electricity Sales (CPO)



### Key Highlights

#### TNB Charge Points



- In 4QFY2024, 12 Charge Points were energised along the PLUS Highway and at AEON Malls.



- Collaboration with JuiceUp to offer an open payment system for EV users. TNB Electron users can now use physical cards for payments at the charging stations.

<sup>1</sup> Committed including construction and supply application stage

<sup>2</sup> PLAN Malaysia - Malaysia Electric Vehicle Charge Network

# GSPARX transforms consumers to prosumers through rooftop solar installations, elevating Malaysia's green energy progress

## Customers Secured

23.7MWp



### Lembaga Penyelidikan Perikanan (LPP) Batu Maung

- To install 0.53MWp rooftop solar PV at LPP building in Batu Maung, Pulau Pinang.
- Target to be delivered by 2QFY2025.



### UTM Skudai & UTM KL

- To install 13.60MWp rooftop solar PV at UTM's campus in Johor and KL.
- Target to be delivered by 4QFY2025.



### University Sains Islam Malaysia (USIM)

- To install 5.50MWp rooftop solar PV at USIM's campus in Nilai, Negeri Sembilan.
- Target to be delivered by 4QFY2025.



### MAHSA University & Hospital

- To install 3.50MWp rooftop solar PV at MAHSA's campus and Hospital in Jenjarom, Selangor.
- Target to be delivered by 4QFY2025.



### Sekolah Menengah Agama Jabatan Hal Ehwal Agama Terengganu

- To install 0.53MWp rooftop solar PV at the identified schools in Terengganu.
- Target to be delivered by 3QFY2026.

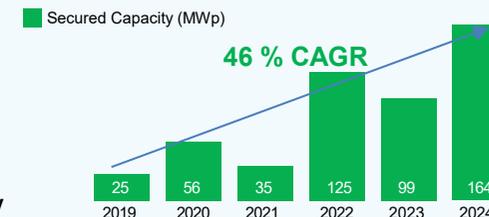
## Progress

3,130

Projects secured

504MWp

Cumulative Secured Capacity



Secured Capacity

164MWp

FY2024 Target: 160MWp



100MWp

FY2025 Target

NEM 3.0 NOVA Extension

65%

Quota Approved  
Data as of 5 February 2025

1,700MW

Total Quota Allocation (2021- June 2025)  
Additional quota announced in November 2024 (300MW)

## Partnership with Sime Darby Property



Progress

1.2MWp installed at 10 sites

2.8MWp\*  
14 SDP sites

consist of Sime Darby Sales Galleries, Clubhouses and Malls: At ~50% completion.

Status Update: 2 sites are under finalisation with clients

\*Revised in capacity due to Public Distribution License regulation and client's preference

# Y-o-Y analysis

RM mil		FY2024	FY2023	Variance	
				RM mil	%
Revenue	1	56,737.1	53,066.9	3,670.2	6.9
Imbalance Cost Pass Through (ICPT)	2	9,097.7	10,598.2	(1,500.5)	(14.2)
Operating expenses (without depreciation)	3	(47,726.0)	(46,105.4)	(1,620.6)	3.5
Net reversal on impairment of financial instruments	4	789.1	114.7	674.4	>100.0
Other operating income		1,054.5	948.2	106.3	11.2
<b>EBITDA</b>		<b>19,952.4</b>	<b>18,622.6</b>	<b>1,329.8</b>	<b>7.1</b>
EBITDA Margin (%)		35.2%	35.1%	-	0.1%
Depreciation		(11,232.3)	(11,265.7)	33.4	(0.3)
<b>EBIT</b>		<b>8,720.1</b>	<b>7,356.9</b>	<b>1,363.2</b>	<b>18.5</b>
<b>Foreign exchange:</b>					
- Transaction		(24.8)	81.1	(105.9)	>(100.0)
- Translation	5	492.2	(290.6)	782.8	>(100.0)
Share of results of joint ventures		23.2	18.1	5.1	28.2
Share of results of associates		84.3	44.3	40.0	90.3
<b>Profit before finance cost</b>		<b>9,295.0</b>	<b>7,209.8</b>	<b>2,085.2</b>	<b>28.9</b>
Fair value changes of financial instruments		(11.1)	(49.4)	38.3	(77.5)
Finance income		628.7	544.3	84.4	15.5
Finance cost	6	(4,097.8)	(4,331.1)	233.3	(5.4)
<b>Profit from ordinary activities before taxation and zakat</b>		<b>5,814.8</b>	<b>3,373.6</b>	<b>2,441.2</b>	<b>72.4</b>
<b>Taxation and Zakat:</b>					
- Company and subsidiaries		(706.4)	(611.1)	(95.3)	15.6
- Deferred taxation		(378.8)	(158.9)	(219.9)	>100.0
<b>Profit for the period (PAT)</b>		<b>4,729.6</b>	<b>2,603.6</b>	<b>2,126.0</b>	<b>81.7</b>
<b>Attributable to:</b>					
- Owners of the Company		4,698.6	2,770.3	1,928.3	69.6
- Non-controlling interests		31.0	(166.7)	197.7	>(100.0)
		<b>4,729.6</b>	<b>2,603.6</b>	<b>2,126.0</b>	<b>81.7</b>

## Y-o-Y analysis:

1 Higher Group revenue recorded from sales demand growth of 6.5% and additional revenue mainly from TNBI operations.

2 Reduction in ICPT mainly due to decrease in coal price.

3 Refer Operating Expenses slide.

4 Improvement in allowance for doubtful debts was mainly attributed to operational improvement in collection (net impact of RM789.1 mil).

5 Forex translation gain due to strengthening of MYR.

6 Lower finance cost due to repayment of loans and interest capitalisation.

# Q-o-Q analysis

RM mil	4QFY'24	3QFY'24	Variance	
			RM mil	%
Revenue	14,378.3	14,351.6	26.7	0.2
Imbalance Cost Pass Through (ICPT)	1,726.1	2,196.4	(470.3)	(21.4)
Operating expenses (without depreciation)	(11,685.6)	(12,295.8)	610.2	(5.0)
Net reversal on impairment of financial instruments	771.3	62.8	708.5	>100.0
Other operating income	363.4	179.4	184.0	>100.0
<b>EBITDA</b>	<b>5,553.5</b>	<b>4,494.4</b>	<b>1,059.1</b>	<b>23.6</b>
EBITDA Margin (%)	38.6%	31.3%	-	7.3%
Depreciation	(2,711.8)	(2,882.0)	170.2	(5.9)
<b>EBIT</b>	<b>2,841.7</b>	<b>1,612.4</b>	<b>1,229.3</b>	<b>76.2</b>
<b>Foreign exchange:</b>				
- Transaction	(50.7)	7.6	(58.3)	>(100.0)
- Translation	(553.8)	1,112.5	(1,666.3)	>(100.0)
Share of results of joint ventures	8.9	7.3	1.6	21.9
Share of results of associates	(202.2)	28.1	(230.3)	>(100.0)
<b>Profit before finance cost</b>	<b>2,043.9</b>	<b>2,767.9</b>	<b>(724.0)</b>	<b>(26.2)</b>
Fair value changes of financial instruments	(6.1)	(44.1)	38.0	(86.2)
Finance income	183.3	130.1	53.2	40.9
Finance cost	(1,078.4)	(978.5)	(99.9)	10.2
<b>Profit from ordinary activities before taxation and zakat</b>	<b>1,142.7</b>	<b>1,875.4</b>	<b>(732.7)</b>	<b>(39.1)</b>
<b>Taxation and Zakat:</b>				
- Company and subsidiaries	140.2	(267.9)	408.1	>(100.0)
- Deferred taxation	(375.1)	24.0	(399.1)	>(100.0)
<b>Profit for the period (PAT)</b>	<b>907.8</b>	<b>1,631.5</b>	<b>(723.7)</b>	<b>(44.4)</b>
<b>Attributable to:</b>				
- Owners of the Company	954.5	1,584.3	(629.8)	(39.8)
- Non-controlling interests	(46.7)	47.2	(93.9)	>(100.0)
	<b>907.8</b>	<b>1,631.5</b>	<b>(723.7)</b>	<b>(44.4)</b>

Q-o-Q analysis:

1 Lower ICPT mainly due to lower power purchase cost.

2 Refer Operating Expenses slide.

3 Improvement in allowance for doubtful debts resulting from the finalisation of a settlement arrangement with a trade receivable.

4 Forex translation loss due to weakening of MYR.

5 Reversal of RM225.1 mil based on reassessment of the share of profit in Q4 of an associate in Türkiye (hyperinflationary accounting). This has a corresponding reversal of impairment, hence neutral impact to earnings.

# Y-o-Y normalised EBITDA and PAT for FY2024

EBITDA Components	FY2024 RM mil	FY2023 RM mil
Reported EBITDA	19,952.4	18,622.6
MFRS16 impact	<b>1</b> (3,816.1)	(4,219.7)
Normalised EBITDA	16,136.3	14,402.9

PAT Components	FY2024 RM mil	FY2023 RM mil
Reported PAT	4,729.6	2,603.6
Forex Translation	(492.2)	290.6
MFRS16 impact	<b>1</b> 640.4	673.6
Normalised PAT	4,877.8	3,567.8

**1** MFRS16 impact:

	FY2024 RM mil	FY2023 RM mil	Variance RM mil
Capacity Payment	3,816.1	4,219.7	(403.6)
Depreciation	(3,136.4)	(3,461.5)	325.1
Finance Cost	(1,508.5)	(1,636.5)	128.0
Deferred Tax	188.4	204.7	(16.3)
Net Impact	<b>(640.4)</b>	<b>(673.6)</b>	<b>33.2</b>

# Higher Group revenue driven by overall healthy demand growth

	4QFY'24	3QFY'24	Variance (4QFY'24 vs 3QFY'24)		FY2024	FY2023	Variance (FY2024 vs FY2023)	
	GWh	GWh	GWh	%	GWh	GWh	GWh	%
<b>UNITS SOLD</b>								
<b>Sales of Electricity (GWh)</b>								
- TNB	32,469.7	33,358.5	(888.8)	(2.7)	130,848.1	123,206.0	7,642.1	6.2
- SESB	1,678.0	1,697.0	(19.0)	(1.1)	6,662.7	6,169.8	492.9	8.0
- Energy Export	29.8	0.3	29.5	>100.0	30.7	0.5	30.2	>100.0
- TNBI*	186.6	274.6	(88.0)	(32.0)	997.7	694.0	303.7	43.8
<b>Total Units Sold (GWh)</b>	<b>34,364.1</b>	<b>35,330.4</b>	<b>(966.3)</b>	<b>(2.7)</b>	<b>138,539.2</b>	<b>130,070.3</b>	<b>8,468.9</b>	<b>6.5</b>
<b>REVENUE</b>								
	RM mil	RM mil	RM mil	%	RM mil	RM mil	RM mil	%
<b>Sales of Electricity (RM)</b>								
- TNB	13,001.5	13,438.2	(436.7)	(3.2)	52,675.0	49,278.7	3,396.3	6.9
- SESB	565.2	570.2	(5.0)	(0.9)	2,280.5	2,095.4	185.1	8.8
- Accrued Revenue	37.3	41.9	(4.6)	(11.0)	161.7	232.8	(71.1)	(30.5)
- Energy Export	24.7	0.2	24.5	>100.0	25.3	0.4	24.9	>100.0
- TNBI	170.6	230.7	(60.1)	(26.1)	876.7	776.4	100.3	12.9
<b>Sales of Electricity</b>	<b>13,799.3</b>	<b>14,281.2</b>	<b>(481.9)</b>	<b>(3.4)</b>	<b>56,019.2</b>	<b>52,383.7</b>	<b>3,635.5</b>	<b>6.9</b>
Other Regulatory Adjustment	(246.0)	(666.3)	420.3	63.1	(2,119.9)	(1,243.9)	(876.0)	(70.4)
Tariff Support Subsidy	78.7	79.0	(0.3)	(0.4)	311.0	287.4	23.6	8.2
Fuel Subsidy - SESB	78.8	103.8	(25.0)	(24.1)	335.4	286.0	49.4	17.3
<b>Total Sales of Electricity</b>	<b>13,710.8</b>	<b>13,797.7</b>	<b>(86.9)</b>	<b>(0.6)</b>	<b>54,545.7</b>	<b>51,713.2</b>	<b>2,832.5</b>	<b>5.5</b>
Goods & Services	545.0	447.9	97.1	21.7	1,756.5	916.5	840.0	91.7
Construction contracts	31.9	31.0	0.9	2.9	124.7	151.1	(26.4)	(17.5)
Customers' contribution	90.6	75.0	15.6	20.8	310.2	286.1	24.1	8.4
<b>Total Revenue</b>	<b>14,378.3</b>	<b>14,351.6</b>	<b>26.7</b>	<b>0.2</b>	<b>56,737.1</b>	<b>53,066.9</b>	<b>3,670.2</b>	<b>6.9</b>

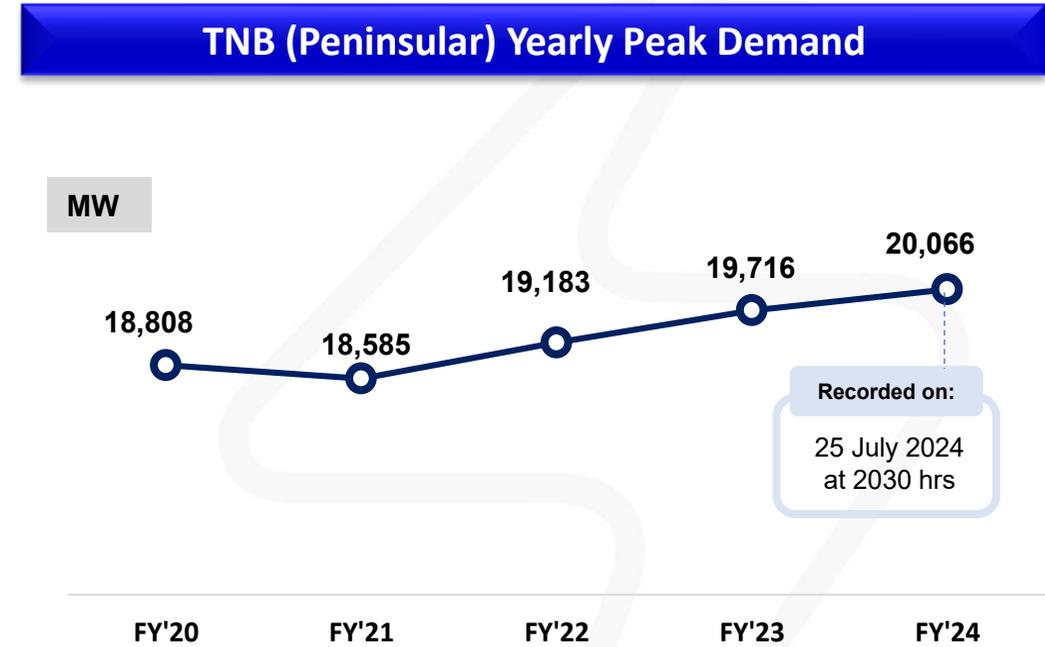
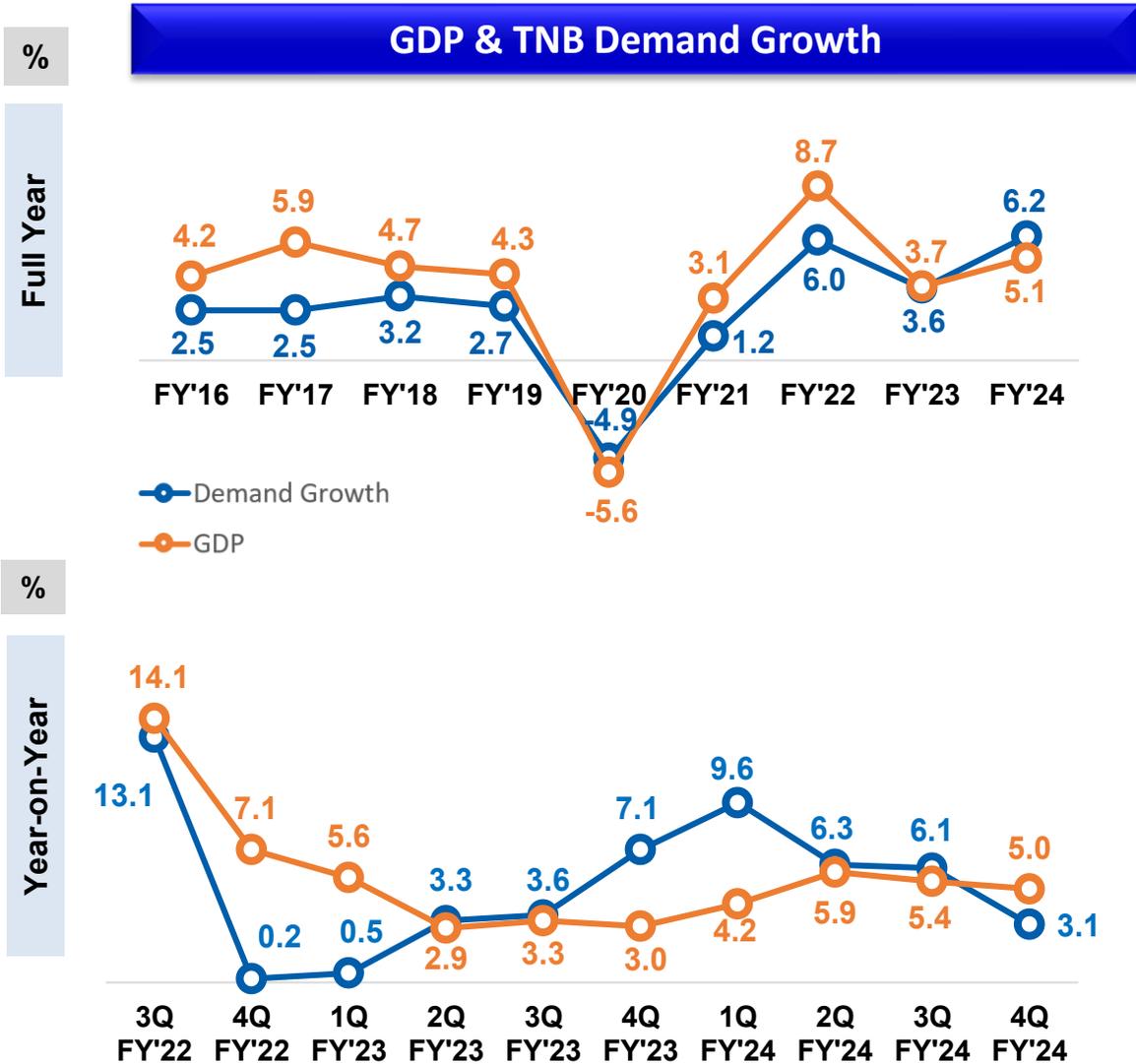
1 Higher revenue recorded from higher demand growth across all business units and additional revenue from TNBI operations.

2 Refer Other Regulatory Adjustment slide.

3 Higher revenue recorded by subsidiaries.

\*Refer International Investments slide for details

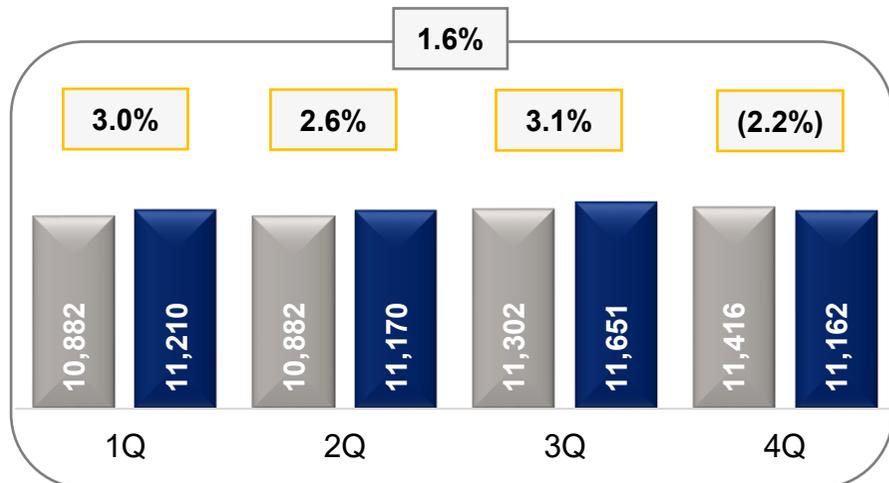
# Y-o-Y electricity demand grew in tandem with GDP



Source : Economic and Financial Developments in Malaysia in the Fourth Quarter of 2024, BNM

# Increased demand across all sectors mainly contributed by commercial and domestic

## Industrial



**FY'24 main contributors for the increase in industrial & commercial sectors:**

### Industrial

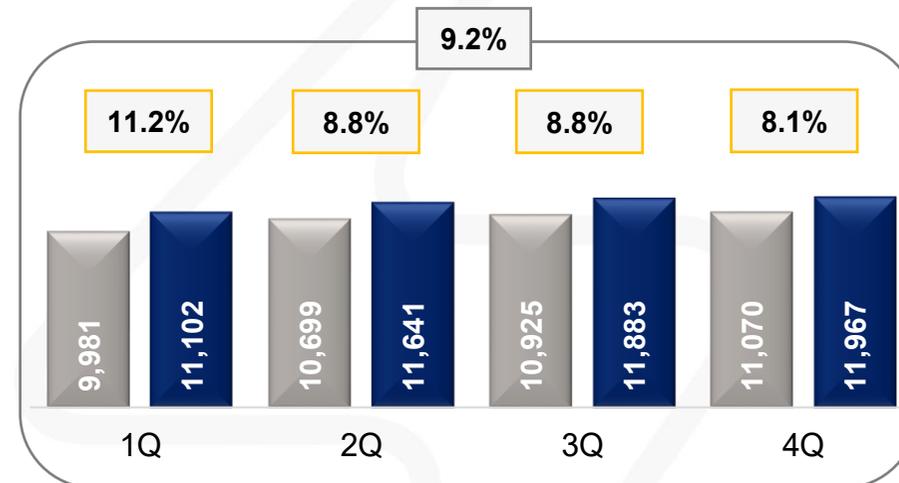
- Consumer products, utility electrical and iron & steel

### Commercial

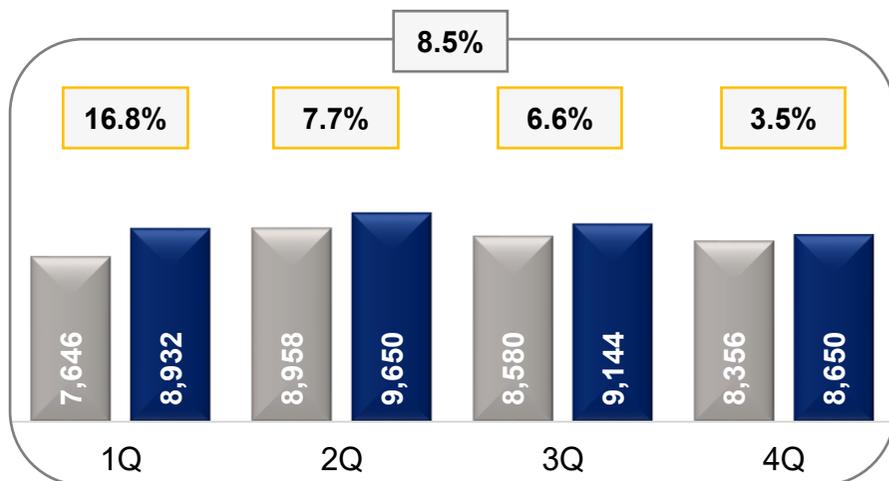
- Data centre, retails and business services



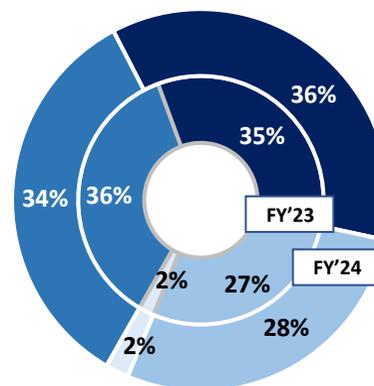
## Commercial



## Domestic

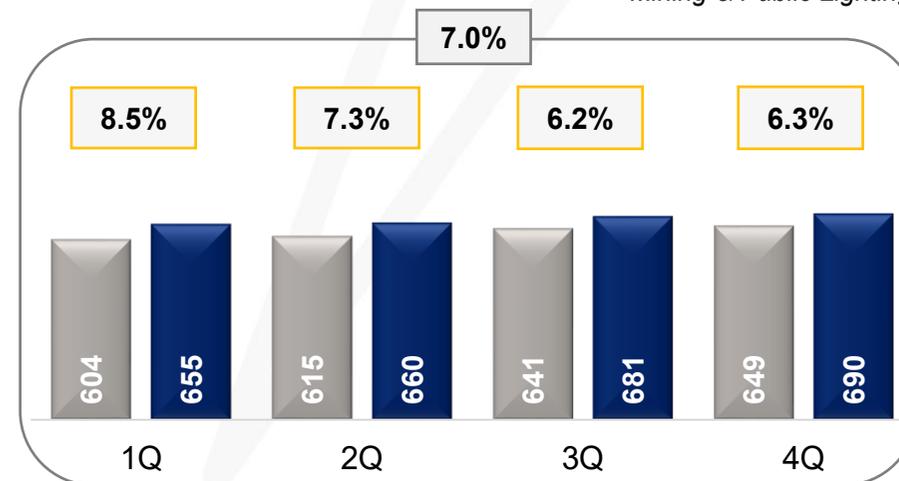


## Sector Mix (%) FY'24 vs FY'23



## Others\*

\*includes Agriculture, Mining & Public Lighting



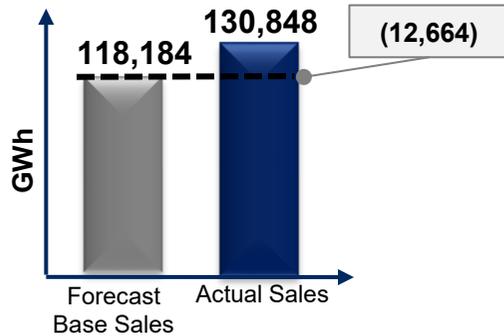
# As at FY2024, other regulatory adjustment of RM2,119.9 mil to be returned

Components of Other Regulatory Adjustment	1QFY'24 RM mil	2QFY'24 RM mil	3QFY'24 RM mil	4QFY'24 RM mil	FY2024 RM mil	FY2023 RM mil
Revenue Adjustment for Revenue Cap & Price Cap	(412.4)	(684.1)	(621.0)	(425.1)	1 (2,142.6)	(1,138.6)
Refund Related to Regulated Business	(66.7)	(52.2)	(85.3)	(129.6)	(333.8)	(290.4)
Net Recovery of Unexpected Expenditures and Others	-	-	37.9	301.8	339.7	156.8
Regulatory Adjustment for SESB*	10.7	(2.9)	2.1	6.9	16.8	28.4
<b>TOTAL</b>	<b>(468.4)</b>	<b>(739.2)</b>	<b>(666.3)</b>	<b>(246.0)</b>	<b>(2,119.9)</b>	<b>(1,243.9)</b>

\*SESB has implemented IBR framework starting 1 January 2022

## Revenue Cap

FY2024 Variation in Sales (in GWh)



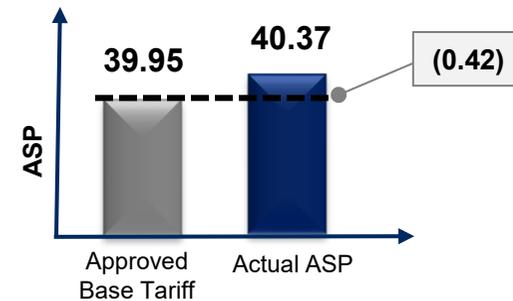
- The allowed annual revenue for revenue cap entities is based on 118.1TWh demand growth. Any excess/shortfall is adjusted through revenue adjustment mechanism.
- For FY2024, higher actual sales has led to amount to be returned via revenue adjustment mechanism.

Business Entities	Allowed Tariff (sen/kWh)	Variation in Sales (GWh)	Adjustment RM mil
Revenue Cap Entities	12.60	(12,664)	(1,593.4)

Numbers manually computed will not match due to decimal variance

## Price Cap

FY2024 Variation in ASP (sen/kWh)



- Any excess/shortfall of revenue earned due to higher/lower Average Selling Price (ASP) compared to Base Tariff is adjusted through revenue adjustment mechanism.
- For FY2024, the ASP recorded was higher than the Base Tariff, thus the amount is to be returned via revenue adjustment mechanism.

Business Entities	Actual Sales (GWh)	Variation in ASP (sen/kWh)	Adjustment RM mil
Price Cap Entity	130,848	(0.42)	(549.2)

# Higher Y-o-Y operating expenses

	4QFY'24	3QFY'24	Variance (4QFY'24 vs 3QFY'24)		FY2024	FY2023	Variance (FY2024 vs FY2023)	
	RM mil	RM mil	RM mil	%	RM mil	RM mil	RM mil	%
<b>Non-TNB IPPs Costs</b>	<b>4,086.7</b>	<b>4,612.0</b>	<b>(525.3)</b>	<b>(11.4)</b>	<b>17,626.9</b>	<b>15,498.4</b>	<b>2,128.5</b>	<b>13.7</b>
Capacity Payment	94.1	(67.8)	161.9	>(100.0)	104.3	(12.8)	117.1	>(100.0)
Energy Payment	3,992.6	4,679.8	(687.2)	(14.7)	17,522.6	15,511.2	2,011.4	13.0
<b>TNB Fuel Costs</b>	<b>4,298.6</b>	<b>4,273.6</b>	<b>25.0</b>	<b>0.6</b>	<b>17,460.0</b>	<b>19,452.3</b>	<b>(1,992.3)</b>	<b>(10.2)</b>
Fuel Costs	4,275.5	4,561.4	(285.9)	(6.3)	17,702.8	19,954.7	(2,251.9)	(11.3)
Fuel Price Adjustment	23.1	(287.8)	310.9	>(100.0)	(242.8)	(502.4)	259.6	51.7
<b>Total OPEX - Fuel and Power Purchase</b>	<b>8,385.3</b>	<b>8,885.6</b>	<b>1</b> <b>(500.3)</b>	<b>(5.6)</b>	<b>35,086.9</b>	<b>34,950.7</b>	<b>2</b> <b>136.2</b>	<b>0.4</b>
Staff Costs	893.5	911.5	(18.0)	(2.0)	3,723.5	3,889.1	(165.6)	(4.3)
Repair & Maintenance	916.7	837.7	79.0	9.4	3,247.6	3,030.8	216.8	7.2
TNB General Expenses	810.4	518.7	<b>3</b> <b>291.7</b>	<b>56.2</b>	<b>2,192.4</b>	<b>1,950.1</b>	<b>3</b> <b>242.3</b>	<b>12.4</b>
Subs. COS & General Expenses	679.7	1,142.3	<b>4</b> <b>(462.6)</b>	<b>(40.5)</b>	<b>3,475.6</b>	<b>2,284.7</b>	<b>5</b> <b>1,190.9</b>	<b>52.1</b>
<b>Total OPEX - Non Fuel (without Depreciation)</b>	<b>3,300.3</b>	<b>3,410.2</b>	<b>(109.9)</b>	<b>(3.2)</b>	<b>12,639.1</b>	<b>11,154.7</b>	<b>1,484.4</b>	<b>13.3</b>
<b>Total Operating Expenses (without Depreciation)</b>	<b>11,685.6</b>	<b>12,295.8</b>	<b>(610.2)</b>	<b>(5.0)</b>	<b>47,726.0</b>	<b>46,105.4</b>	<b>1,620.6</b>	<b>3.5</b>
Depreciation & Amortisation	2,711.8	2,882.0	(170.2)	(5.9)	11,232.3	11,265.7	(33.4)	(0.3)
<b>Total Operating Expenses</b>	<b>14,397.4</b>	<b>15,177.8</b>	<b>(780.4)</b>	<b>(5.1)</b>	<b>58,958.3</b>	<b>57,371.1</b>	<b>1,587.2</b>	<b>2.8</b>

**1** 4QFY'24 vs 3QFY'24: Lower fuel and power purchase costs due to lower gas price (refer Fuel Costs slide).

**2** FY2024 vs FY2023: Higher fuel and power purchase costs due to higher units generated.

**3** Higher due to training and feasibility studies completed in the quarter.

**4** 4QFY'24 vs 3QFY'24: Movement in subsidiaries COS & general expenses is attributed to the 4QFY'24 reversal of impairment for an associate in Türkiye (made in 3QFY'24); with a corresponding adjustment in the share of results of associates. These adjustments are neutral to earnings.

**5** FY2024 vs FY2023: Higher subsidiaries COS & general expenses are mainly due to:

- Higher cost of sales (COS) to support higher revenue recorded (~RM600 mil);
- Increase in general R&M, demolition at Paka PS, slope rehabilitation at Pergau PS and UJ PS, and dredging cost at Cameron PS (RM333.6 mil); and
- Derecognition of subsidiary balances upon winding up (RM134.1 mil).

# Lower overall fuel costs due to lower coal price in FY2024

**Table A – TNB & IPP Fuel Costs for Peninsular**

Fuel Type	FY2024		FY2023		Variance	
	RM mil		RM mil		RM mil	%
Coal	17,828.2		20,388.3		(2,560.1)	(12.6)
Gas	11,738.9		10,868.1		870.8	8.0
Distillate	166.5		268.2		(101.7)	(37.9)
Oil	25.9		29.7		(3.8)	(12.8)
<b>Total*</b>	<b>29,759.5</b>		<b>31,554.3</b>		<b>(1,794.8)</b>	<b>(5.7)</b>

\*Comprises TNB Fuel Costs & fuel payments to IPPs (part of Energy Payment), exclude solar.

**Table B – TNB & IPP Units Generated for Peninsular**

Fuel Type	FY2024		FY2023		Variance	
	GWh	Gen. Mix (%)	GWh	Gen. Mix (%)	GWh	%
Coal	80,365.8	56.7	76,306.2	57.0	4,059.6	5.3
Gas	51,677.2	36.4	49,028.8	36.6	2,648.4	5.4
Distillate	85.1	0.1	201.7	0.2	(116.6)	(57.8)
Hydro	6,647.8	4.7	6,138.9	4.6	508.9	8.3
Solar	3,014.4	2.1	2,109.0	1.6	905.4	42.9
<b>Total</b>	<b>141,790.3</b>	<b>100.0</b>	<b>133,784.6</b>	<b>100.0</b>	<b>8,005.7</b>	<b>6.0</b>

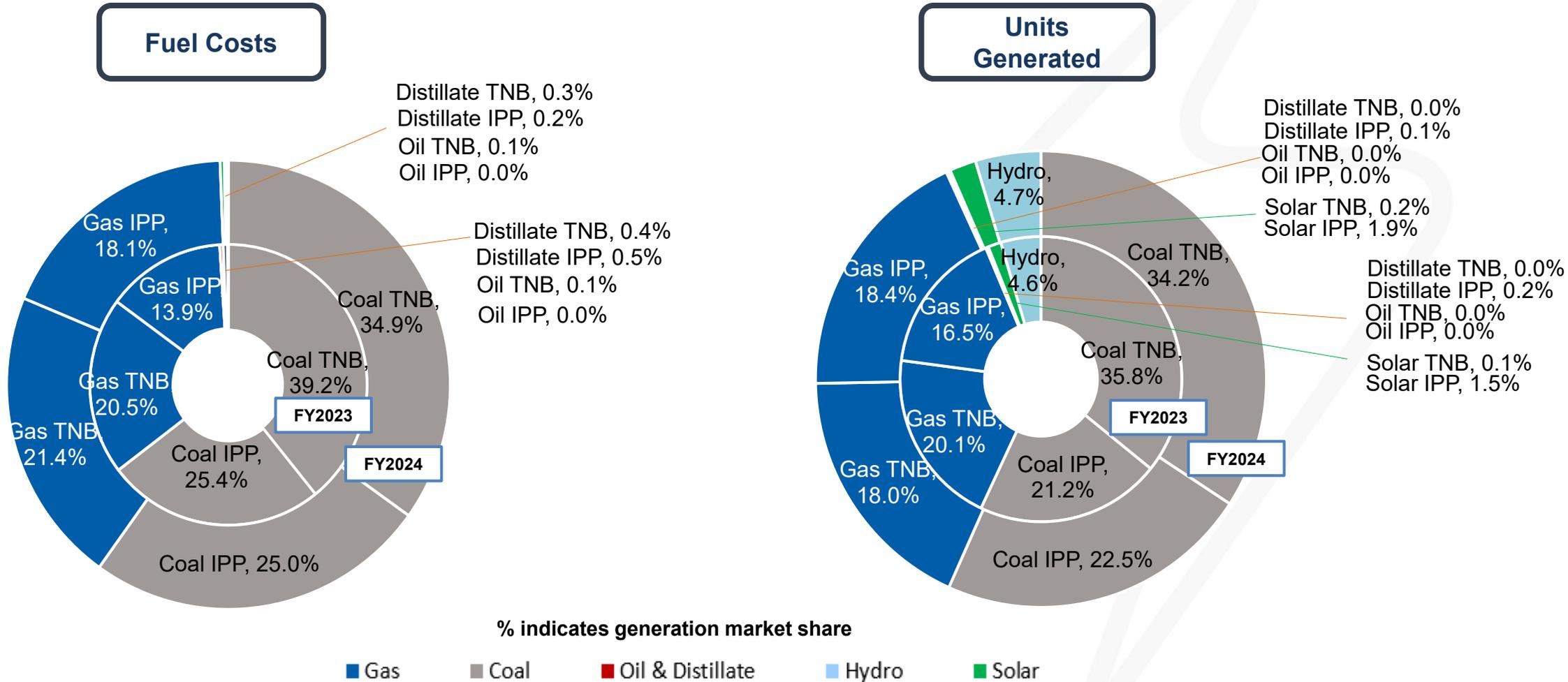
**Table C – Fuel Costs Related Data**

Fuel statistics	FY2024	FY2023
Average Coal Price Delivered (USD/MT)(CIF)	113.2	134.0
Average Coal Price Delivered (RM/MT)(CIF)	517.9	609.7
Coal Consumption (mil MT)	34.7	33.1
Gas Reference Market Price (RM/mmbtu)	1QFY'24	1QFY'23
	Tier 1 : 30.0	Tier 1 : 30.0
	Tier 2 : 44.7	Tier 2 : 62.1
	2QFY'24	2QFY'23
	Tier 1 : 35.0	Tier 1 : 30.0
	Tier 2 : 47.4	Tier 2 : 51.7
	3QFY'24	3QFY'23
	Tier 1 : 35.0	Tier 1 : 30.0
	Tier 2 : 45.7	Tier 2 : 44.9
	4QFY'24	4QFY'23
	Tier 1 : 35.0 (Oct)	Tier 1 : 30.0
	Tier 1 : 30.0 (Nov-Dec)	Tier 2 : 42.7
Tier 2 : 45.4		
Daily Average Piped Gas Volume (mmscfd)	946	878

**Table D – Average Coal Price Delivered**

	FY2024		FY2023		Variance	
	USD/MT		USD/MT		USD/MT	%
FOB	103.4		124.3		(20.9)	(16.8)
Freight	9.3		9.2		0.1	1.1
Others	0.5		0.5		-	-
<b>CIF</b>	<b>113.2</b>		<b>134.0</b>		<b>(20.8)</b>	<b>(15.5)</b>

# Fuel Costs & Units Generated (TNB & IPPs – Peninsular) in FY2024



Note: Fuel Costs exclude solar and hydro

# Lower Q-o-Q fuel costs mainly due to lower units generated and a reduction in gas price

**Table A – TNB & IPP Fuel Costs for Peninsular**

Fuel Type	4QFY'24		3QFY'24		2QFY'24		1QFY'24		Variance 4QFY'24 vs 3QFY'24	
	RM mil		RM mil		RM mil		RM mil		RM mil	%
Coal	4,579.8		4,441.3		4,605.6		4,201.5		138.5	3.1
Gas	2,551.1		2,939.3		3,013.5		3,235.0		(388.2)	(13.2)
Distillate	39.8		49.0		19.0		58.7		(9.2)	(18.8)
Oil	-		2.0		10.5		13.4		(2.0)	(100.0)
<b>Total</b>	<b>7,170.7</b>		<b>7,431.6</b>		<b>7,648.6</b>		<b>7,508.6</b>		<b>(260.9)</b>	<b>(3.5)</b>

Note: Comprise TNB Fuel Costs & fuel payments to IPPs (part of Energy Payment), exclude solar.

**Table B – TNB & IPP Units Generated for Peninsular**

Fuel Type	4QFY'24		3QFY'24		2QFY'24		1QFY'24		Variance 4QFY'24 vs 3QFY'24	
	GWh	Gen. Mix (%)	GWh	%						
Coal	20,554.1	58.6	21,109.4	58.3	20,505.7	57.2	18,196.6	52.6	(555.3)	(2.6)
Gas	11,747.2	33.5	12,954.0	35.8	13,341.0	37.3	13,635.0	39.4	(1,206.8)	(9.3)
Distillate	-	0.0	39.4	0.1	-	0.0	45.7	0.1	(39.4)	(100.0)
Hydro	2,055.7	5.8	1,246.1	3.4	1,289.6	3.6	2,056.4	5.9	809.6	65.0
Solar	737.6	2.1	886.2	2.4	692.2	1.9	698.4	2.0	(148.6)	(16.8)
<b>Total</b>	<b>35,094.6</b>	<b>100.0</b>	<b>36,235.1</b>	<b>100.0</b>	<b>35,828.5</b>	<b>100.0</b>	<b>34,632.1</b>	<b>100.0</b>	<b>(1,140.5)</b>	<b>(3.1)</b>

**Table C – Fuel Costs Related Data**

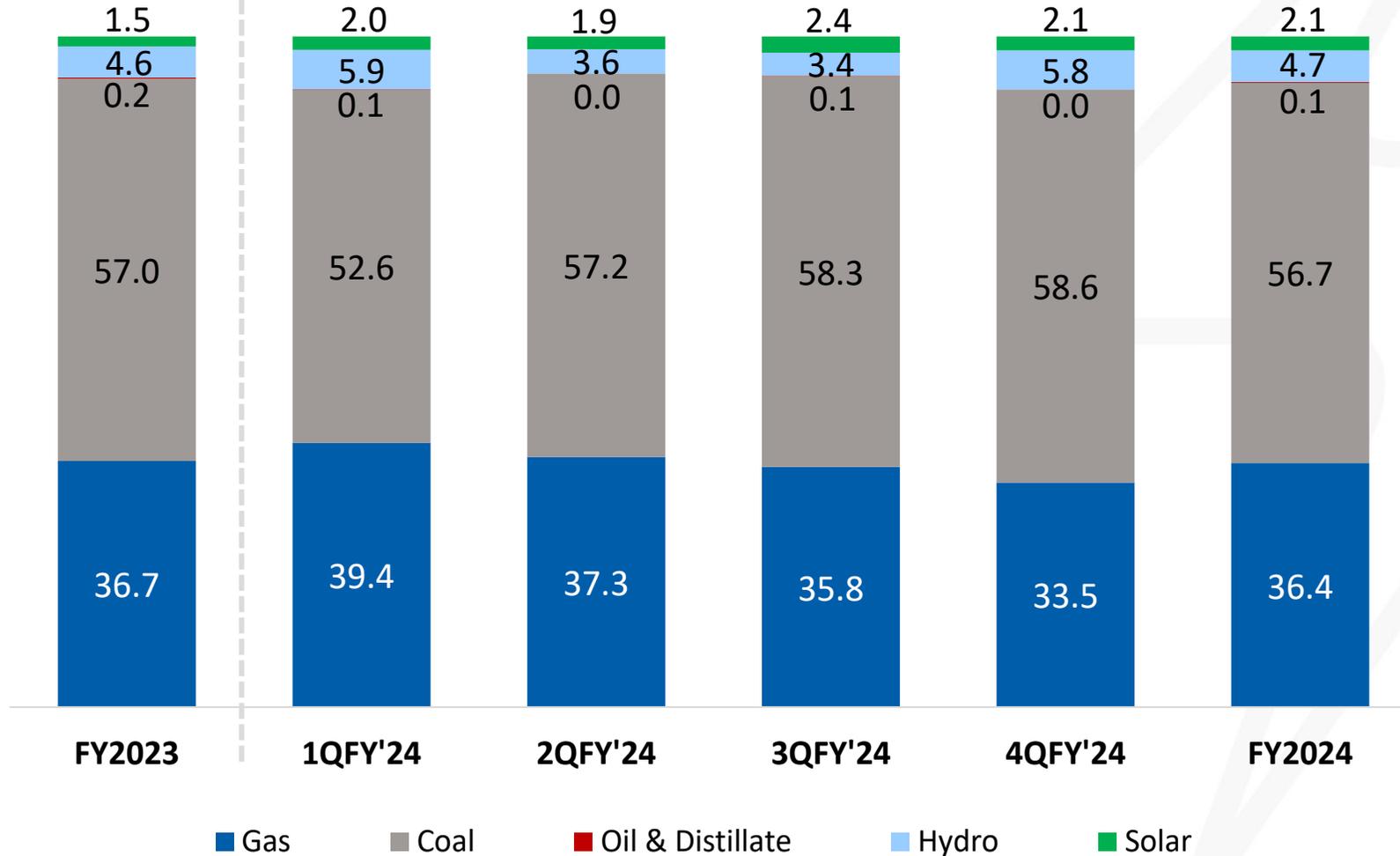
Fuel statistics	4QFY'24	3QFY'24	2QFY'24	1QFY'24
Average Coal Price Delivered (USD/MT)(CIF)	115.3	112.0	112.2	113.7
Average Coal Price Delivered (RM/MT)(CIF)	505.8	499.6	531.0	536.2
Coal Consumption (mil MT)	9.0	9.3	8.7	7.7
Gas Reference Market Price (RM/mmbtu)	4QFY'24	3QFY'24	2QFY'24	1QFY'24
	Tier 1 : 35.0 (Oct)	Tier 1 : 35.0	Tier 1 : 35.0	Tier 1 : 30.0
	Tier 1 : 30.0 (Nov-Dec)	Tier 2 : 45.7	Tier 2 : 47.4	Tier 2 : 44.7
	Tier 2 : 45.4			
Daily Average Piped Gas Volume (mmscfd)	837	951	978	1017

**Table D – Average Coal Price Delivered**

	4QFY'24		3QFY'24		2QFY'24		1QFY'24		Variance 4QFY'24 vs 3QFY'24	
	USD/MT		USD/MT		USD/MT		USD/MT		USD/MT	%
FOB	105.4		102.2		102.0		104.5		3.2	3.1
Freight	9.5		9.4		9.7		8.7		0.1	1.1
Others	0.4		0.4		0.5		0.5		-	-
<b>CIF</b>	<b>115.3</b>		<b>112.0</b>		<b>112.2</b>		<b>113.7</b>		<b>3.3</b>	<b>2.9</b>

# Lower generation from coal in FY2024

### Generation Mix for Industry (%)

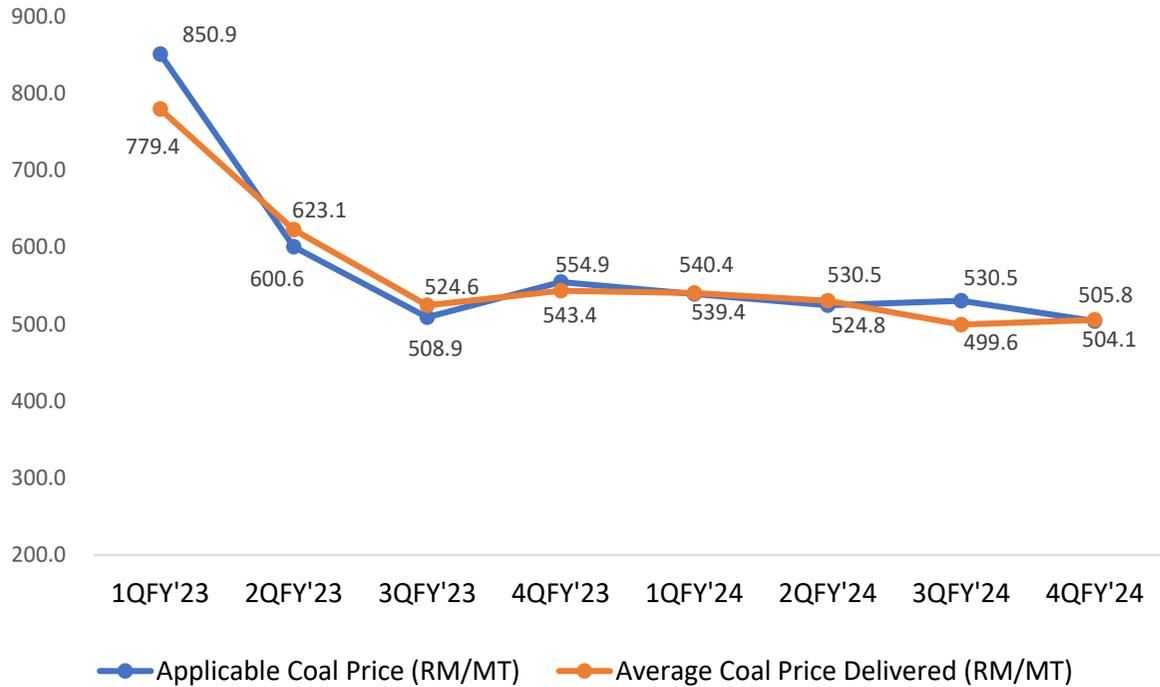


# TNB is neutral to volatility in fuel costs under the ICPT framework

	1QFY'24	2QFY'24	3QFY'24	4QFY'24	FY2024
	RM mil				
Single Buyer Actual Generation Costs: <b>(A)</b>	10,710.6	11,499.8	10,936.3	10,233.2	43,379.9
<i>Actual Sales (GWh)</i>	31,899.4	33,120.5	33,358.5	32,469.7	130,848.1
<i>Single Buyer Tariff (RM/kWh)</i>	0.2620	0.2620	0.2620	0.2620	0.2620
Actual Gen Cost Recovered <b>(B)</b>	8,357.6	8,677.6	8,739.9	8,507.1	34,282.2
<b>ICPT Surcharge / (Rebate) (C)</b> <b>(C = A – B)</b>	<b>2,353.0</b>	<b>2,822.2</b>	<b>2,196.4</b>	<b>1,726.1</b>	<b>9,097.7</b>

Note: Numbers manually computed will not match due to decimal variance

## Coal Price Trending



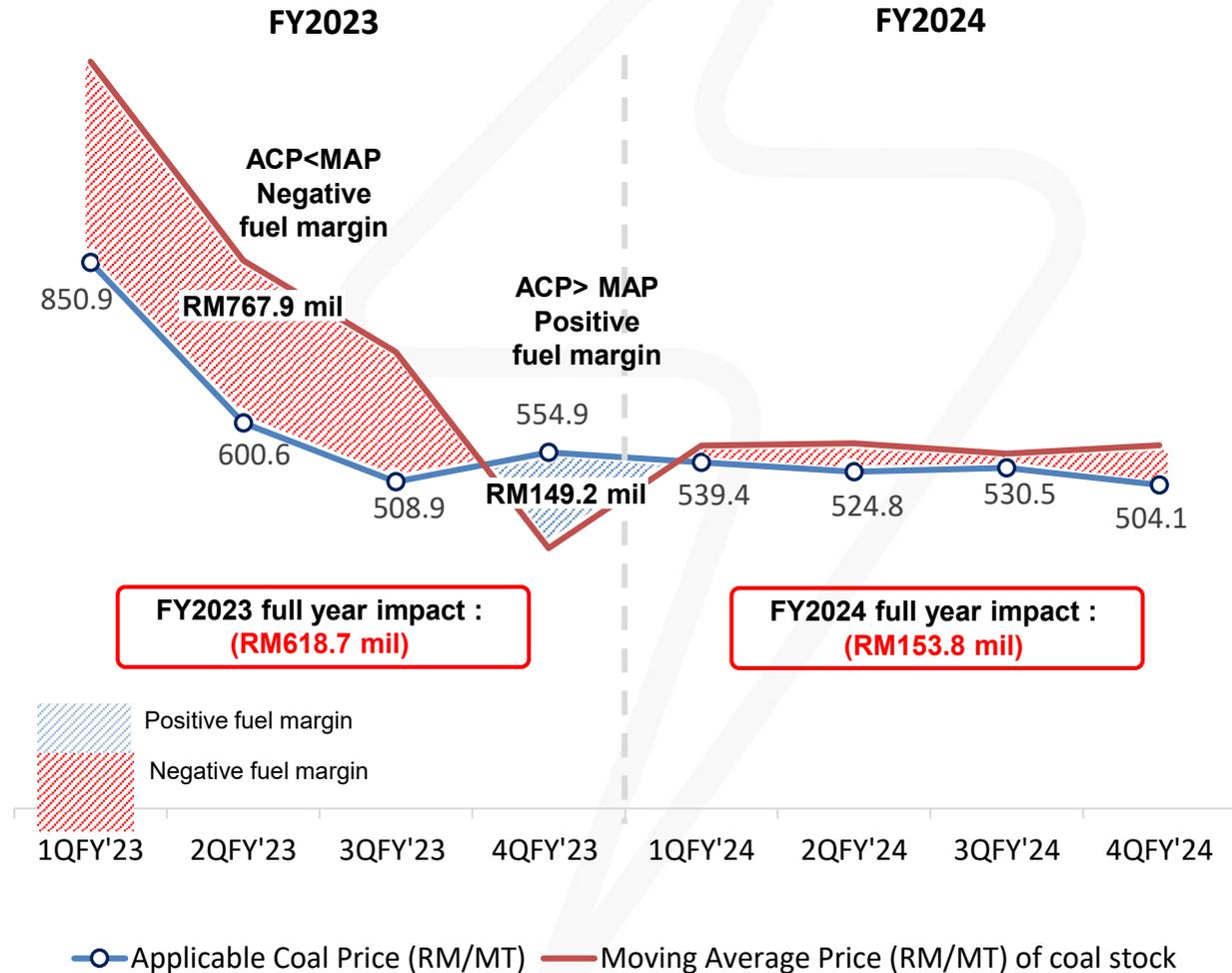
### Coal Price & Applicable Coal Price (ACP) comparison

	1QFY'23	2QFY'23	3QFY'23	4QFY'23	1QFY'24	2QFY'24	3QFY'24	4QFY'24
Average Coal Price Delivered (RM/mmbtu) *	35.85	29.43	24.31	24.36	24.81	24.23	22.88	23.17
ACP (RM/mmbtu)	38.77	27.52	23.32	25.42	24.73	24.13	24.31	23.08

\* Based on internal conversion

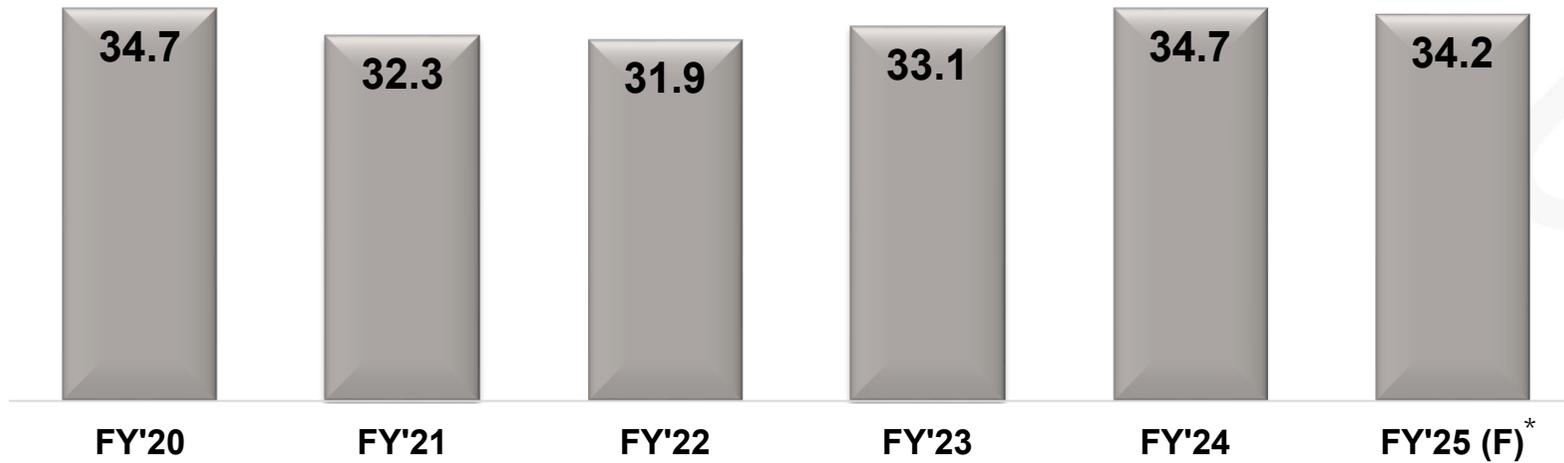
- Fuel Price Adjustment (FPA)** is the difference between the Applicable Coal Price (ACP) billed to generators and the actual coal price paid to supplier (delivered) by TNBF. The difference is caused by higher or lower coal price or due to currency exchange.
- ACP is set by Energy Commission on a monthly basis starting from August 2022.
- In 4QFY'24, the base ACP (RM23.08/mmbtu) used for billing the generators was lower than the coal price paid to supplier (RM23.17/mmbtu).

## Fuel Margin: Applicable Coal Price (ACP) vs Moving Average Price (MAP)



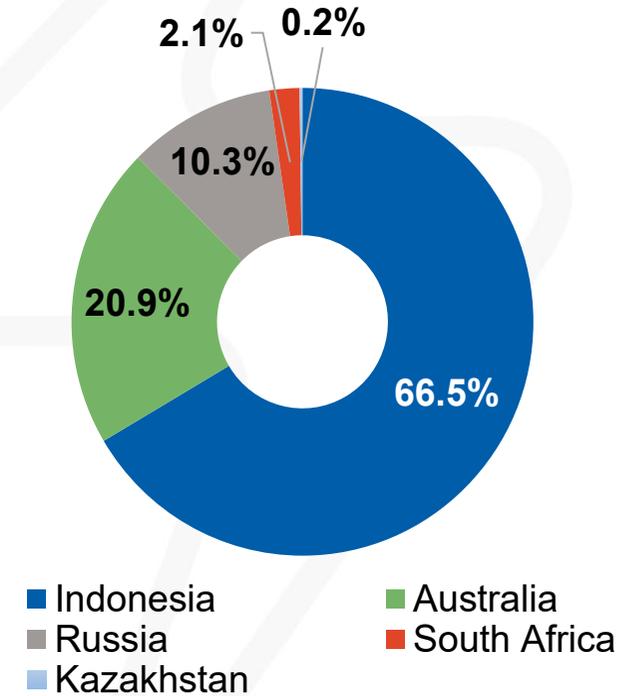
# Industry coal requirement forecast for FY2025

Coal Consumption (mil MT)



\* Based on tonnage planned for delivery

Source Country Mix for FY'24



# Group CAPEX

RM mil

11,171.4

10,245.4



FY2024

FY2023



## Regulated CAPEX and Regulated Asset Base (RAB)

FY	RP3 REGULATED ENTITIES CAPEX		
	IBR Approved RM mil	Actual RM mil	Utilisation (%)
2024	7,836.8	8,835.2	>100%

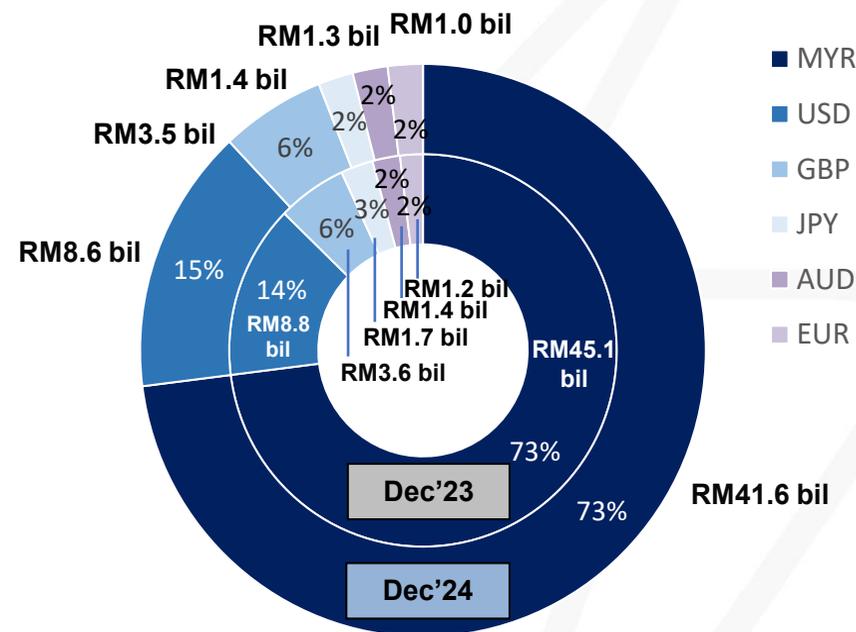
Total RAB as at 31 Dec 2024: RM68,823.8 mil

Note: Numbers manually computed will not match due to decimal variance

# Gearing improved to 47.8% as at FY2024

	31 Dec'24	31 Dec'23
Total Debt (RM bil)	57.4 	61.8
Net Debt* (RM bil)	37.4	40.8
Gearing (%)	47.8 	50.3
Net Gearing (%)	31.1	33.2

## Major Loan Breakdown




**4.83%**  
(FY'23: 4.75%)  
**Effective Average  
Cost of Borrowing\*\***



**95:5**  
(FY'23: 95:5)  
**Fixed : Floating  
Final Exposure**

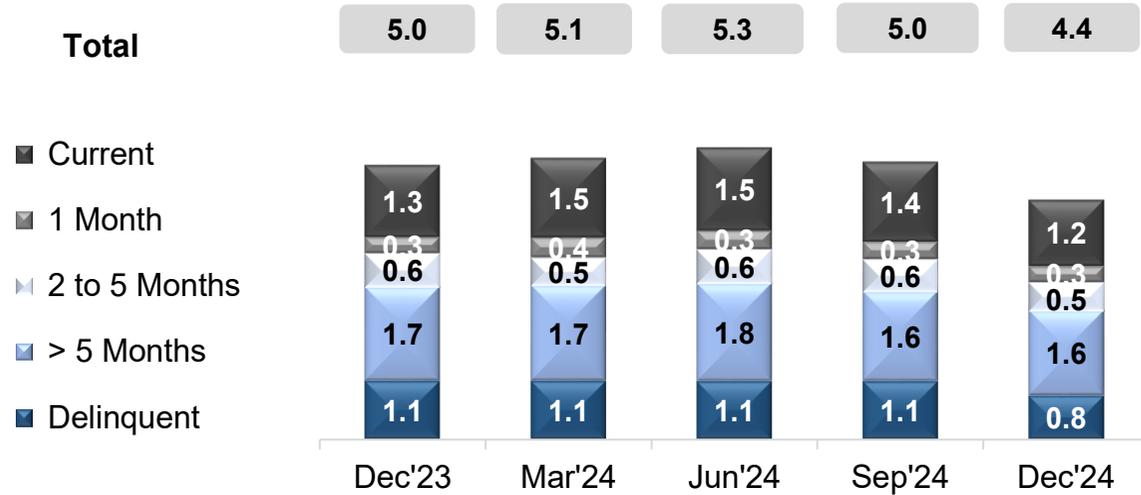
Closing FOREX	31 Dec'24	31 Dec'23
USD/RM	4.471	4.593
GBP/RM	5.606	5.854
AUD/RM	2.775	3.141
100YEN/RM	2.860	3.246
EUR/RM	4.648	5.083

\* Net Debt excludes deposits, bank and cash balances and investment in UTF  
 \*\* Inclusive of interest rate swap

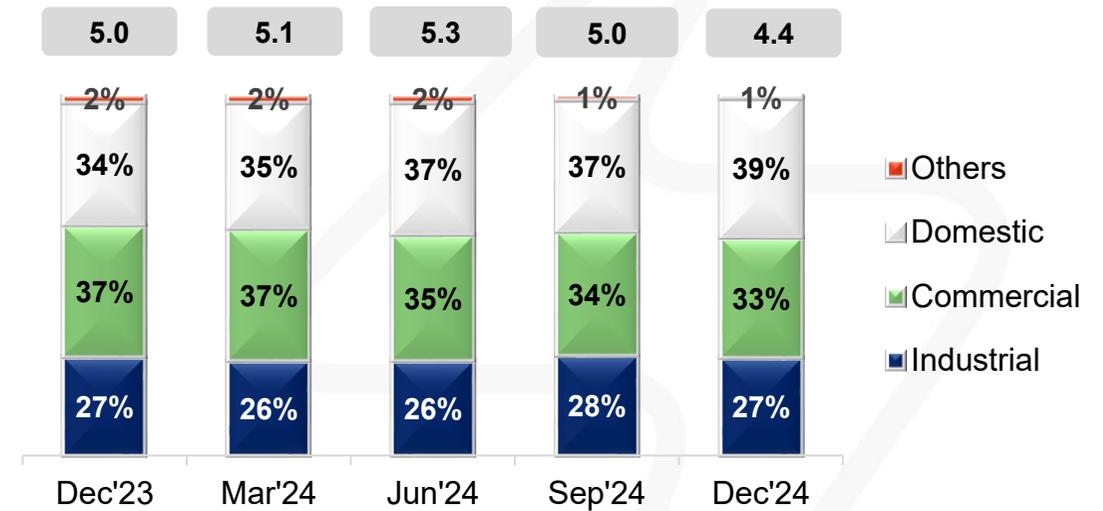
Note:  
Debt consists of Principal + Accrued Interest

# Trade receivables as at FY2024

## Trade Debtors Ageing (RM bil)



## Trade Receivables by Sectors (RM bil)



## Average Collection Period (ACP)

### Improvement in ACP:

Days	Dec'24	Dec'23
With delinquent accounts	25	31
Without delinquent accounts	21	24

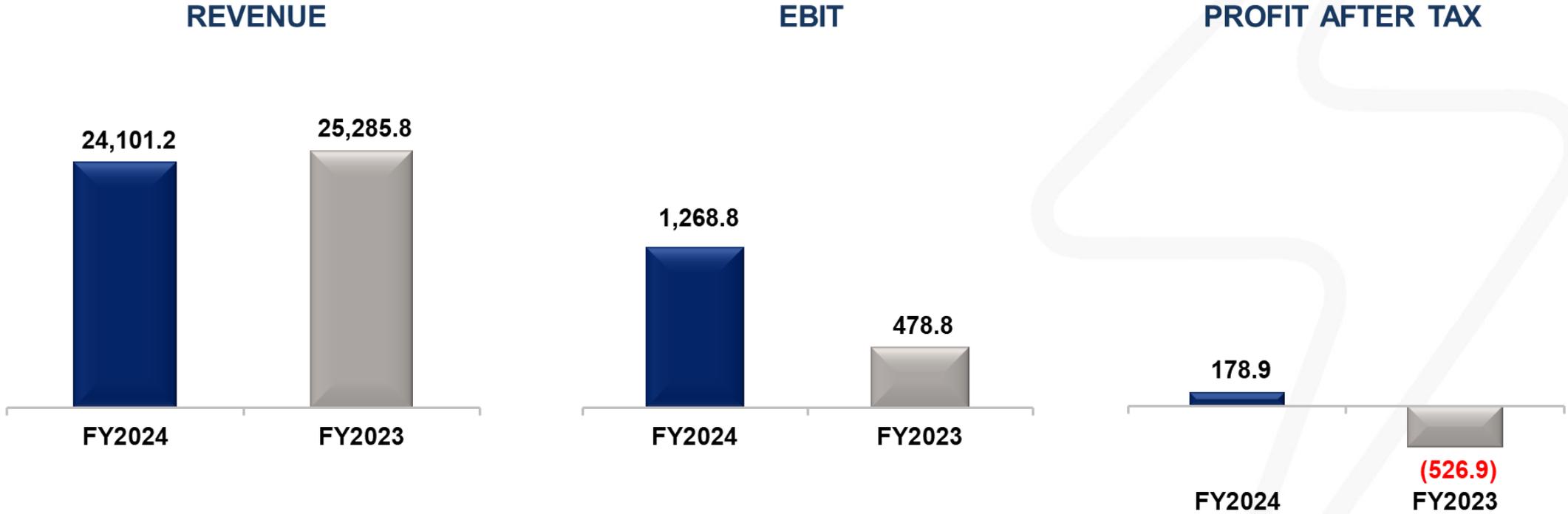


## Cash Flow

- We continuously monitor our cash flow position on a daily basis and remain prudent on our working capital management.
- **Moody's: Reaffirmed TNB corporate credit rating at A3 with a stable outlook (Nov'24).**

# Domestic generation business performance

Y-o-Y: Overall improved performance by power plants despite M4 outage

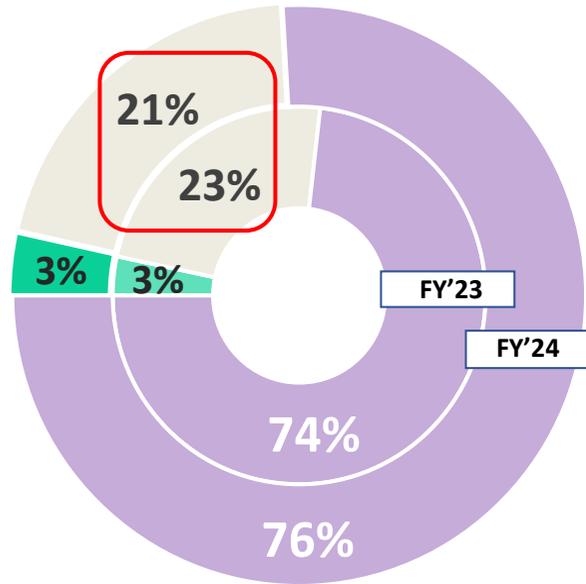


GenCo's improved overall performance attributed by:

- Improved operational performance with EAF of 81.2% despite M4 outage;
- Stabilising global fuel prices especially coal;
- Higher other operating income mainly from SPG one-off claim of RM163.0 mil; and
- Contribution from REMACO with higher PAT mainly from joint venture project Al-Dhow (Kuwait).

# Revenue from coal recorded at 21% due to M4 outage

## Actual Group Revenue\*



RE Coal Others\*\*

\* Total revenue includes ICPT

\*\* Others include revenue from regulated business, subsidiaries and generation from gas

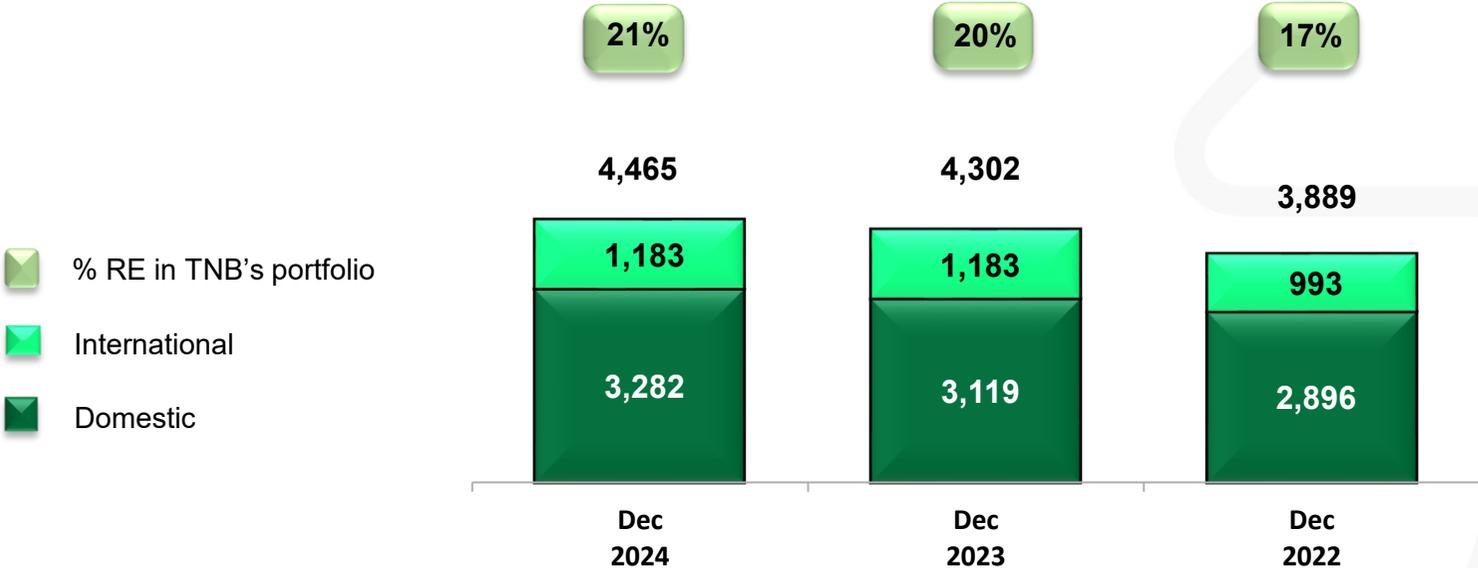


**Long-term aspiration:  
To be coal-free by 2050**

- No new coal plant investment
- Reduction of coal capacity by 50% by 2035 and coal-free by 2050

# Our RE journey is progressing well

## TNB RE Portfolio Renewable capacity (MW)



- Note:
- Gross RE Capacity includes large hydro (exclude SESB)
  - Solar capacity is quoted in MWp starting from 2023

## TNB International Sdn Bhd (TNBI)

### Vantage RE



### Spark Renewables



### Technology Focus:



Solar farms



Onshore wind



Offshore wind



Battery Energy Storage System (BESS)

TNBI is a TNB wholly owned subsidiary incorporated under the laws of Malaysia anchored by Vantage RE in the UK and Spark Renewables in Australia.

TNBI is a platform focused on capturing global renewable energy opportunities, diversifying TNB's portfolio and spearheading TNB's Energy Transition initiative, contributing towards supporting key milestones in TNB's Net Zero 2050 journey.

### Financial Performance

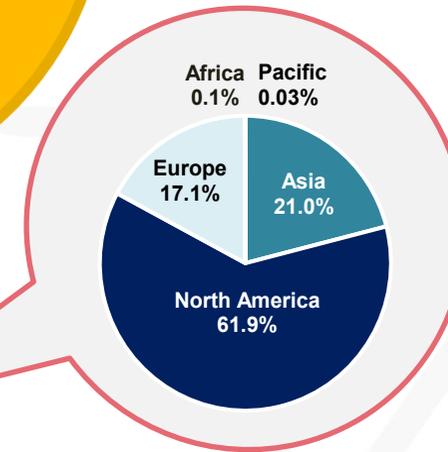
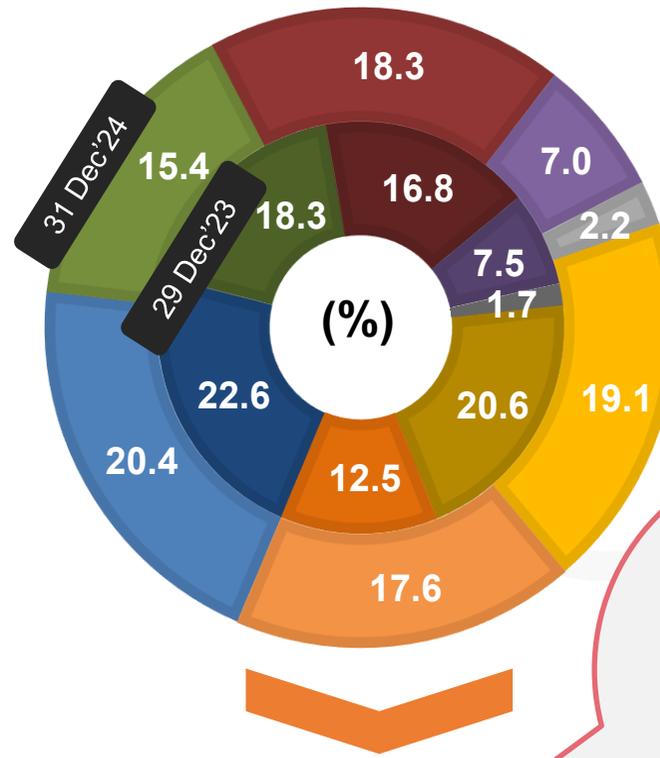
Higher EBITDA Y-o-Y (FY2024: RM541.6 mil vs FY2023: RM380.4 mil) driven by full year contribution from newly acquired 276MW solar portfolio in Ireland (December 2023), along with higher generation from wind assets.

### Outlook

- TNB is committed to grow its presence in RE market and the current focus is on converting development pipelines into operational assets.
- In addition, TNB's international RE platforms are implementing alternative revenue mechanisms, such as Contract-for-Difference (CfD) scheme, Corporate Power Purchase Agreements (PPAs) and exploring Battery Energy Storage System (BESS) based opportunities.
- This strategy will be supported by leveraging on TNB's extensive experience in developing power projects in both international and domestic markets, along with knowledge and technology transfer within TNB Group.
- There is a steady progress in greenfield projects through implementing key strategies to drive timely completion and secure future growth opportunities.

# Shareholdings

-  Khazanah Nasional Berhad
-  Permodalan Nasional Berhad (PNB)
-  Employees Provident Fund Board (EPF)
-  Kumpulan Wang Persaraan (KWAP)
-  Other Government Agencies
-  Local Corporation & Retail
-  Foreign Shareholding



Foreign Shareholding (%)



**Institutional: 17.4%**  
**Retail: 0.2%**

Source: Share Registrar, Bloomberg and IR Internal Analysis

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# Thank you

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