

ANALYST BRIEFING 1QFY2024

4 June 2024



TNB leads in energy transition, leveraging on our energy infrastructure while fully supporting the nation's decarbonisation efforts

Expanding RE generation portfolio via Large Scale Solar Programme (LSS5)




- LSS5 offers **2,000MW** total capacity, including a **new category for floating solar plants**.
- TNB will participate in the bidding process under this LSS Programme.

Up to 500MW
Solar Capacity

Energy Exchange Malaysia (ENEGEM) marks a significant milestone in cross-border RE trading



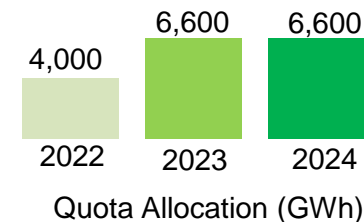
- The CBES RE¹ Scheme will use **ENEGEM** as a **marketplace for selling Green Electricity** via a **bidding mechanism** managed by Single Buyer.
- RE export will be a promising avenue for **new revenue streams** and a **catalyst for industry capacity expansion**.

100MW Export Capacity (Pilot phase)
 **Duration 1 year** (Sep'24 to Aug'25)

Supporting the growth of RE industries and reducing reliance on gas or coal sources via Green Electricity Tariff (GET) 2024



- Quota of **6,600GWh**.
- Offered at a **competitive premium rate**:
 - 10 sen/kWh for domestic & low voltage non-domestic customers; and
 - 20 sen/kWh for medium & high voltage non-domestic customers.



41%
994 subscribers
762 LV
232 MV & HV

We remain committed to driving our sustainable agenda; forging ahead with growing our RE portfolio

Projects

2024 Outlook

GenCo



Sungai Perak Hydro Life Extension Programme 651MW COD: 2026

- Finalisation of new PPA
- Commencement of preliminary and main works

Nenggiri Hydro Project 300MW COD: 2Q2027

Achieve 56% project progress

Hybrid Hydro-Floating Solar PV (HHFS) ~2,900MWp by 2040 Phase 1 276MWp, COD: 2025

Finalisation of potential offtake mechanisms, completion of feasibility studies and ESIA¹

Paka Repowering 1,400MW COD: 2030

Finalisation of relevant agreements with the regulator

New Combined Cycle Power Plant (Kapar) 2,100MW COD: 2031

Receive Letter of Notification from regulator

Co-firing of Hydrogen & Ammonia

Hydrogen: Completion of feasibility study
Ammonia: Completion of FEED study & regulatory review

NED



Solar Greenfield Development (UK) 102MWp COD: 2024

Achieve COD by 3QFY2024

Corporate Green Power Programme (CGPP) 135MWp COD: 2025

Commencement of construction works

Centralised Solar Park 5 x 150MWp COD: 2026

Achieve financial close

Note: Solar capacity is quoted in MWp

¹ Environmental Social Impact Assessment

1QFY2024 Key Highlights

Nenggiri Hydro Project

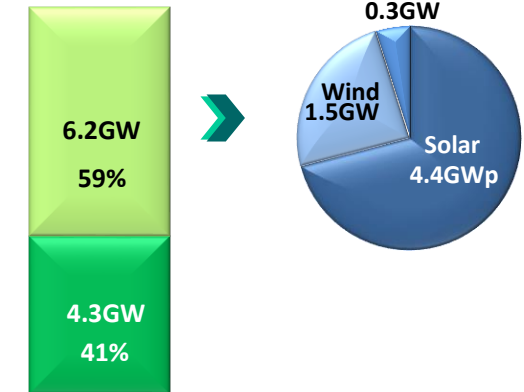
Achieved 30% project progress

Solar Greenfield Development (UK)

Project progress is on track to achieve COD by 3QFY2024



10.5GW Secured RE Capacity²



CO₂ Emission Avoidance
~14 mil tCO₂e p.a.

² Secured RE capacity includes assets in operation, under construction and in development



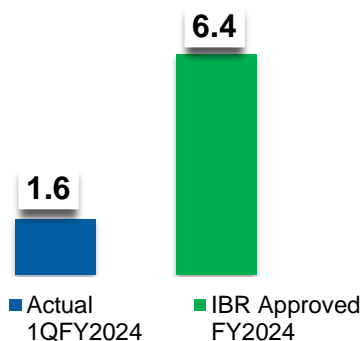
1QFY2024 Regulated Entity



Regulatory Returns achievement is as per expectations

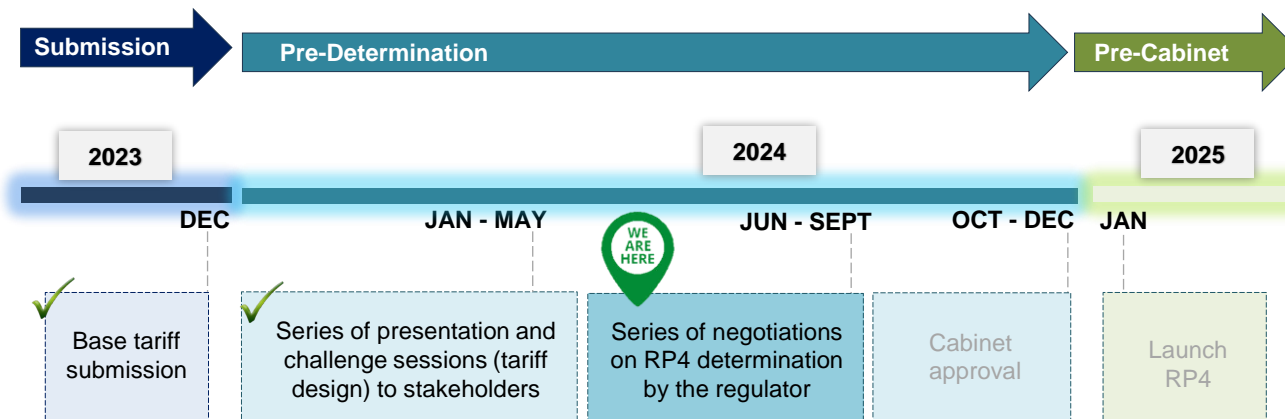
CAPEX RM bil

25.3%
CAPEX utilisation



RP4 proposal is anchored on 6 MESI outcomes; enabling Energy Transition while balancing security of supply and affordability

RP4 Milestone

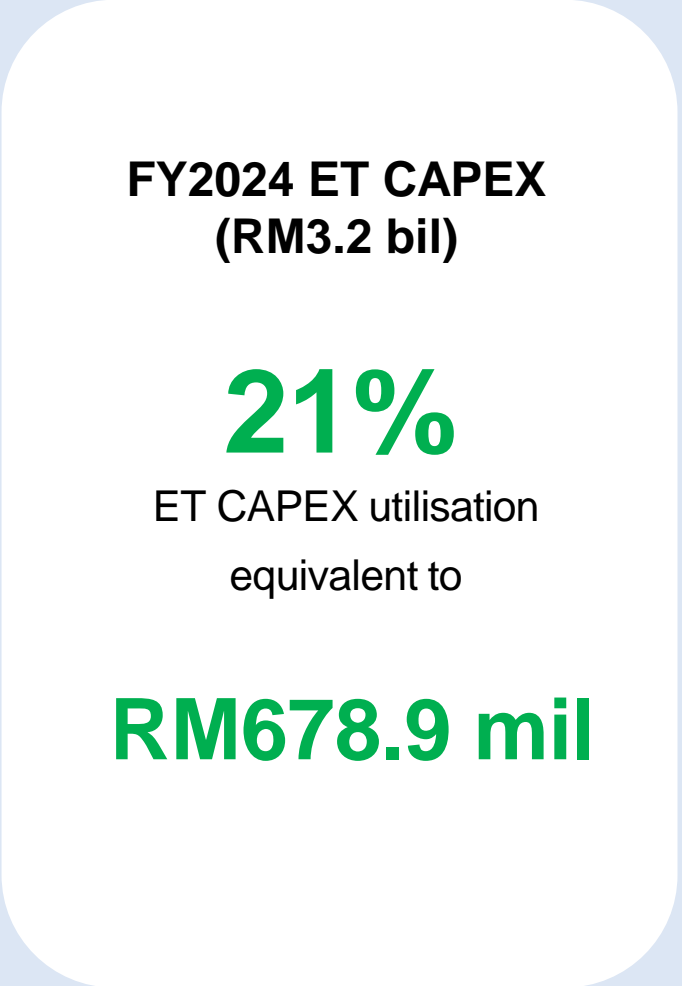


TNB supports **tariff reforms** that ensures **electricity costs** are fairly and **equitably reflected**. These reforms aim to **deliver positive long-term results for the industry**.

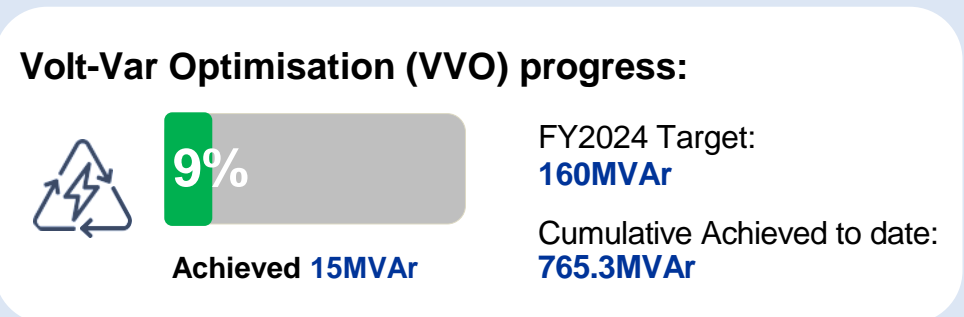
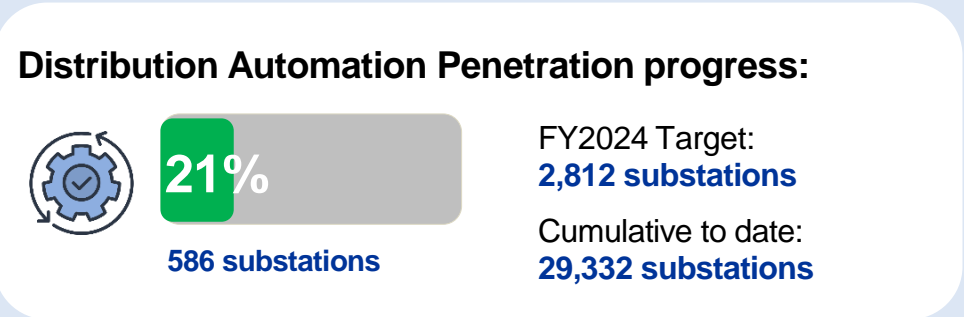
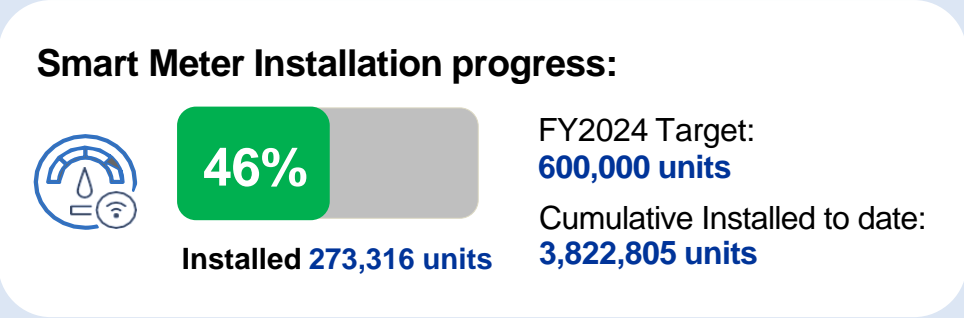
As a responsible grid owner, building and maintaining an intelligent, resilient and flexible electricity grid system is crucial to enable faster adoption of increased renewable energy

1QFY2024 Key Achievements

Supporting the Energy Transition (ET) and RAB growth



Key Projects



Our ability to deliver power at scale and speed has supported the growth in data centres across the country; successfully delivered 2 projects under Green Lane Pathway

Data Centres

2024 Outlook

Data Centre Projects
Expected to be completed

9
Projects

~700MW
Total energy demand

Electricity Supply Agreement (ESA) signed

10
Projects

~2,000MW
Total energy demand



1QFY2024 Key Achievements

Under Green Lane Pathway:

2
Completed Projects

~535MW
Total energy demand

Signed Electricity Supply Agreements (ESA)

2
Projects

~484MW
Total energy demand

Delivered within 12 months:



Yondr Data Centre, Sedenak Tech Park, Johor **commissioned at 275kV supply** in March 2024



Princeton Digital Group (PDG) Data Centre, Sedenak Tech Park, Johor **commissioned at 132kV supply** in March 2024



Signed ESA with Microsoft in January 2024 with **target to commission at 132kV by June 2025***



Signed ESA with Vantage Data Centre in January 2024 with **target to commission at 275kV by December 2025***

**based on customers' supply required dates*

1QFY2024 Key Achievements



SP Setia Mall & SP Setia Corporate HQ

- Completed installation of solar panels to generate a combined 4.3MWp of solar capacity at both locations.



TDM Berhad

- To install 1.1MWp rooftop solar PV at their premise, Wisma TDM in Kuala Terengganu.
- Target to be delivered by 1QFY2025.



Camel Power Sdn Bhd

- To install 4.5MWp rooftop solar PV at their manufacturing plant in Gebeng, Pahang.
- Target to be delivered by 2QFY2025.



Ultimate Machining Solutions Sdn Bhd

- To install 1.4MWp rooftop solar PV at their plant in Simpang Ampat, Pulau Pinang.
- Target to be delivered by 2QFY2025.



JEP Precision Engineering Sdn Bhd

- To install 869.2kWp rooftop solar PV at their plant in Simpang Ampat, Pulau Pinang.
- Target to be delivered by 2QFY2025.

NETR Project

4.5MW

Solar capacity across 450 homes in City of Elmina



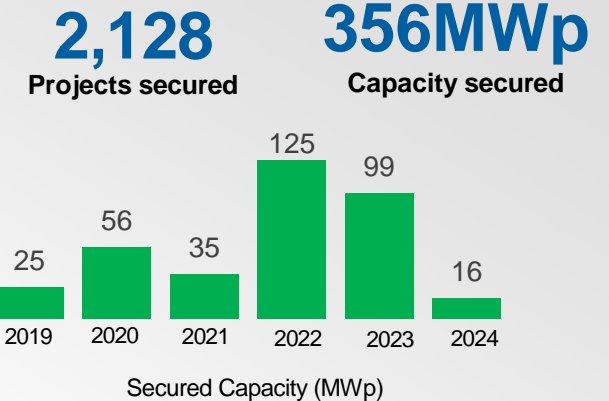
Progress:

- JV between GSPARX and Sime Darby Property (SDP) has been finalised and signed.
- Commencement of design phase for 14 identified SDP assets.

2024 Outlook:

- Project will be executed upon implementation guidelines by regulator.

GSPARX achievement since inception (2019)



1QFY2024 Status



16MWp
Capacity secured



160MWp
2024 Target

1QFY2024 Key Achievements

Charge Points

Commissioned

18

FY2024 Target: 66 DC

Total Commissioned

36

Since 1st installation in 2022



In March 2024, the TNB Electron Juru Setia Sentral charger was commissioned, which is able to deliver up to 200kW of DC fast charging.

Green Lane Supply Connections



148

Applications



115MW

Electricity demand

Fleet Electrification



TNB has electrified **108** vehicles

TNB Charge Points Location

Kedah

DC 1. MARA Langkawi
DC 2. R&R Gurun NB
DC 3. R&R Gurun SB

Pulau Pinang

DC 4. Juru Setia Sentral
DC 5. AEON Bukit Mertajam

Perak

DC 6. R&R Tapah NB
DC 7. R&R Gunung Semangol SB
DC 8. AEON Taiping
DC 9. AEON Manjung
DC 10. AEON Kinta City

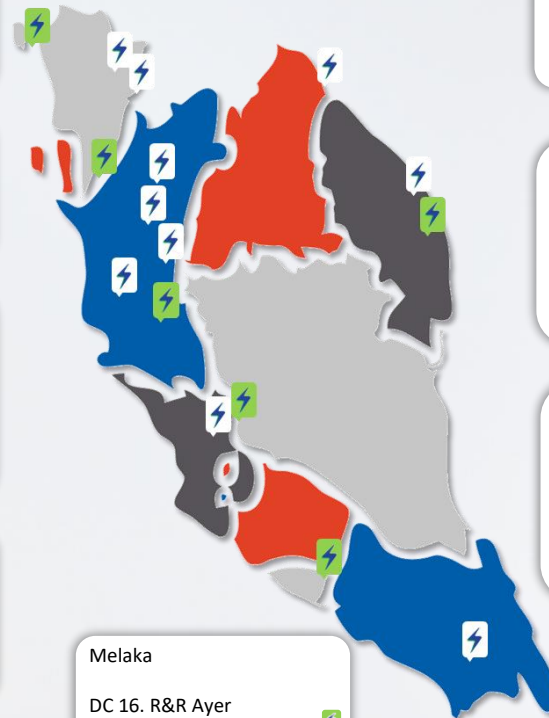
Selangor

DC 11. R&R Rawang NB
DC 12. TNB Bangi
DC 13. TNB Klang-Meru
DC 14. TNB Shah Alam

Kuala Lumpur

DC 15. AEON BiG Wangsa Maju

AC 1. TNB Platinum



Kelantan

DC 17. AEON Kota Bharu
DC 18. Petron Selising

Terengganu


DC 19. R&R Paka NB
DC 20. R&R Paka SB
DC 21. Petron Kg Gemuruh


Johor

DC 22. R&R Machap SB
DC 23. AEON Bandar Dato Onn
DC 24. AEON Taman Universiti

Melaka

DC 16. R&R Ayer Keroh NB

 Planned

 Completed

Amid stronger electricity demand, our 1QFY2024 PAT was impacted by GenCo underperformance and forex translation loss



REVENUE

▲ 8%

1QFY2024

RM13,640.4 mil

1QFY2023: RM 12,625.6 mil

Stronger Y-o-Y revenue driven by electricity demand growth of 9.9%, mainly from:

- i. Peninsular Malaysia sales demand growth of 9.6% (TNB); and
- ii. Higher revenue contribution from TNBI, including new acquisitions in Australia and Ireland.



EBITDA

▼ 1.6%

1QFY2024

RM4,805.0 mil

EBITDA MARGIN: 35.2%

1QFY2023: RM 4,883.7 mil

EBITDA MARGIN: 38.7%

EBITDA declined due to:

- i. Capacity payment loss of RM140.8 mil from Manjung 4 outage; and
- ii. Higher allowance for doubtful debts (net movement of RM89.7 mil) taking into account higher sales of electricity.



PAT

▼ 27.2%

1QFY2024

RM677.9 mil

1QFY2023: RM 930.9 mil

PAT impacted by:

- i. Forex translation loss of RM196.7 mil; and
- ii. Increase in tax expenses of RM180.1 mil mainly due to expenses not allowable for tax.

Group earnings supported by strong and world-class network performance



Equivalent Plant
Availability Factor, EAF
(Generation)
%

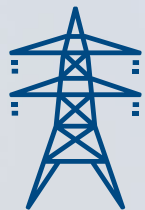
1QFY2024
75.4%

1QFY2023: 84.4%

2024 Target: 78.6%



EAF performance impacted
by Manjung 4 downtime



System Minutes
(Transmission)
Minutes

1QFY2024
0.00

1QFY2023: 0.01

2024 Internal Threshold: 1.5



World class network
performance safeguarded our
regulated business earnings



SAIDI
(Distribution Network)
Minutes

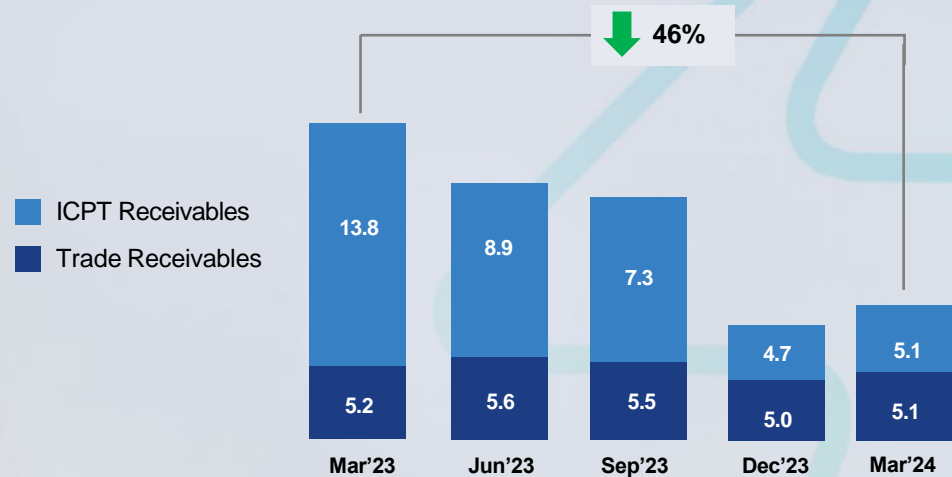
1QFY2024
11.95

1QFY2023: 9.49

2024 Internal Threshold: 50.0

Y-o-Y: Lower receivables contributed by lower ICPT and strong collection trend, strengthening our cash flow position

Receivables (RM bil)

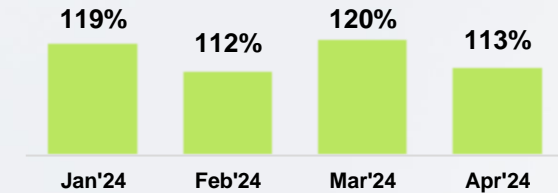


1 ICPT Cost Recovery for 2HFY2023 RM4.7 bil

- As of May 2024, TNB has **fully recovered** RM4.7 bil of ICPT cost for the period of July to December 2023.

2 Strong Collection Trend

- Strong collection trend with collection rate >100% since March 2022.



3 ICPT Outlook for 2HFY2024 ~RM4.6 bil

- While coal price is projected to stabilise in 1HFY2024, lower coal consumption is expected due to Manjung 4 downtime (higher LNG consumption is projected to meet demand).
- ICPT mechanism is intact & TNB remains neutral.

4 S&P Global

Credit Rating **upgraded to A-**

- Coal price has moderated** from 165.06 USD/MT* in April 2023 to 112.41 USD/MT* in April 2024.
- 2024 Outlook:** Easing fuel prices and strong collection trend will:
 - ✓ strengthen working capital management; and
 - ✓ provide a healthier cash flow position.


* Source: globalCOAL Newcastle index

Looking ahead into 2024, we will continue to drive our strategic initiatives to pursue business growth while fulfilling our Net Zero commitments




Electricity Demand


Demand growth is projected to be between **2.5% - 3.0%**



Group CAPEX Forecast

Total Group CAPEX : **Up to RM13.8 bil**
 Regulated capex* : **RM6.4 bil – RM7.7 bil**

* ET Related capex of RM3.2 bil (includes system improvement CAPEX)



Capital Management

- Proactive working capital management in current elevated fuel prices environment
- Active capital allocation and funding for growth



Regulatory Period 4

Proposal: Anchored on the 6 MESI outcomes; enabling Energy Transition while balancing security of supply and affordability

Tariff Reform: Towards cost reflectivity to ensure that the tariff is fair and equitable for the sustainability of the ecosystem



Delivering Value to our Shareholders

The stability of our regulated business will support us in delivering value to our shareholders through sustainable dividends



Sustainable Growth

Ensuring business growth as we progress towards supporting the NETR and becoming a leading provider of sustainable energy solutions

Appendix

1QFY2024

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

Year-on-Year (Y-o-Y) analysis

RM mil		1QFY'24	1QFY'23	Variance	
				RM mil	%
Revenue	1	13,640.4	12,625.6	1,014.8	8.0
Imbalance Cost Pass Through (ICPT)	2	2,353.0	3,632.3	(1,279.3)	(35.2)
Operating expenses (without depreciation)	3	(11,302.4)	(11,641.5)	339.1	(2.9)
Net (loss) / reversal on impairment of financial instruments	4	(59.4)	48.7	(108.1)	>(100.0)
Other operating income		173.4	218.6	(45.2)	(20.7)
EBITDA		4,805.0	4,883.7	(78.7)	(1.6)
EBITDA Margin (%)		35.2%	38.7%	-	(3.5)
Depreciation		(2,780.2)	(2,801.6)	21.4	(0.8)
EBIT		2,024.8	2,082.1	(57.3)	(2.8)
Foreign exchange:					
- Transaction gain		25.4	(1.5)	26.9	>100.0
- Translation (loss)	5	(196.7)	28.1	(224.8)	>(100.0)
Share of results of joint ventures		4.9	0.9	4.0	>100.0
Share of results of associates		14.7	22.1	(7.4)	(33.5)
Profit before finance cost		1,873.1	2,131.7	(258.6)	(12.1)
Fair value changes of financial instrument		27.6	(8.0)	35.6	>(100.0)
Finance income	6	156.2	98.6	57.6	58.4
Finance cost		(1,027.1)	(1,119.6)	92.5	(8.3)
Profit from ordinary activities before taxation		1,029.8	1,102.7	(72.9)	(6.6)
Taxation and Zakat:					
- Company and subsidiaries	7	(258.7)	(150.4)	(108.3)	72.0
- Deferred taxation		(93.2)	(21.4)	(71.8)	>100.0
Profit for the period		677.9	930.9	(253.0)	(27.2)
Attributable to:					
- Owners of the Company		715.7	1,002.3	(286.6)	(28.6)
- Non-controlling interests		(37.8)	(71.4)	33.6	(47.1)
Profit for the period		677.9	930.9	(253.0)	(27.2)

Y-o-Y analysis:

1 Higher Group revenue driven by sales demand growth of 9.9% and additional revenue mainly from UK operations and new acquisitions in Australia and Ireland.

2 Reduction in ICPT by RM1.3 bil was due to decrease in fuel prices.

3 Reduction in operating expenses was mainly due to lower generation cost.

4 Increase in Allowance for Doubtful Debts taking into account higher sales.

5 Higher forex translation loss due to weakening of MYR, mainly for USD loans.

6 Higher finance income mainly from interest income from fixed deposits.

7 Higher tax expenses mainly due to expenses not allowable for tax.

Quarter vs previous quarter (1QFY2024 vs 4QFY2023) analysis

RM mil	1QFY'24	4QFY'23	Variance		
			RM mil	%	
Revenue	13,640.4	13,652.0	(11.6)	(0.1)	
Imbalance Cost Pass Through (ICPT)	2,353.0	2,106.6	246.4	11.7	
Operating expenses (without depreciation)	1	(11,302.4)	(11,964.0)	661.6	(5.5)
Net (loss) / reversal on impairment of financial instruments	2	(59.4)	146.8	(206.2)	>100.0
Other operating income		173.4	338.4	(165.0)	(48.8)
EBITDA	4,805.0	4,279.8	525.2	12.3	
EBITDA Margin (%)	35.2%	31.3%			3.9
Depreciation	(2,780.2)	(2,897.3)	117.1		(4.0)
EBIT	2,024.8	1,382.5	642.3	46.5	
Foreign exchange:					
- Transaction gain	25.4	79.1	(53.7)		(67.9)
- Translation (loss) / gain	3	(196.7)	71.9	(268.6)	>(100.0)
Share of results of joint ventures	4.9	8.7	(3.8)		(43.7)
Share of results of associates	14.7	18.0	(3.3)		(18.3)
Profit before finance cost	1,873.1	1,560.2	312.9	20.1	
Fair value changes of financial instrument	27.6	(63.9)	91.5		>(100.0)
Finance income	156.2	132.6	23.6		17.8
Finance cost	(1,027.1)	(955.0)	(72.1)		7.5
Profit from ordinary activities before taxation	1,029.8	673.9	355.9	52.8	
Taxation and Zakat:					
- Company and subsidiaries	4	(258.7)	20.5	(279.2)	>(100.0)
- Deferred taxation		(93.2)	(170.0)	76.8	(45.2)
Profit for the period	677.9	524.4	153.5	29.3	
Attributable to:					
- Owners of the Company	715.7	583.9	131.8		22.6
- Non-controlling interests	(37.8)	(59.5)	21.7		(36.5)
Profit for the period	677.9	524.4	153.5	29.3	

Q-vs-PrevQ analysis:

- 1 Lower operating expenses mainly due to decrease in fuel prices.
- 2 Increase in ADD taking into account higher sales.
- 3 Higher forex translation loss due to weakening of MYR, mainly for USD loans.
- 4 Higher capital allowances and reinvestment allowances in 4QFY'23.

Y-o-Y normalised EBITDA and PAT for 1QFY2024

EBITDA Components	1QFY'24 RM mil	1QFY'23 RM mil
Reported EBITDA	4,805.0	4,883.7
MFRS16 impact	1 (1,040.2)	(1,082.1)
Normalised EBITDA	3,764.8	3,801.6

PAT Components	1QFY'24 RM mil	1QFY'23 RM mil
Reported PAT	677.9	930.9
Forex Translation loss	196.7	(28.1)
MFRS16 impact	1 158.9	181.2
Normalised PAT	1,033.5	1,084.0

1 MFRS16 impact:

	1QFY'24 RM mil	1QFY'23 RM mil	Variance RM mil
Capacity Payment	1,040.2	1,082.1	(41.9)
Depreciation	(856.8)	(900.5)	43.7
Finance Cost	(388.7)	(416.6)	27.9
Deferred Tax	46.4	53.8	(7.4)
Net Impact	(158.9)	(181.2)	22.3

Higher revenue driven by demand growth and contribution from TNBI operations

	1QFY'24		4QFY'23		Variance (1QFY'24 vs 4QFY'23)		1QFY'24		1QFY'23		Variance (1QFY'24 vs 1QFY'23)		
	GWh		GWh		GWh	%	GWh		GWh		GWh	%	
UNITS SOLD													
Sales of Electricity (GWh)													
- TNB	31,899.4		31,491.4		1	408.0	1.3	31,899.4		29,113.2	1	2,786.2	9.6
- SESB	1,580.1		1,626.6			(46.5)	(2.9)	1,580.1		1,402.0		178.1	12.7
- EGAT (Export)	0.4		0.1			0.3	>100.0	0.4		0.1		0.3	>100.0
- TNBI*	228.9		171.3		2	57.6	33.6	228.9		148.1	2	80.8	54.6
Total Units Sold (GWh)	33,708.8		33,289.4			419.4	1.3	33,708.8		30,663.4		3,045.4	9.9
REVENUE	RM mil	sen/kWh	RM mil	sen/kWh	RM mil	%	RM mil	sen/kWh	RM mil	sen/kWh	RM mil	%	
Sales of Electricity (RM)													
- TNB	12,648.2	40.31	12,570.3	40.05	77.9	0.6	12,648.2	40.31	11,443.6	39.94	1,204.6	10.5	
- SESB	549.2	34.39	545.2	33.98	4.0	0.7	549.2	34.39	478.8	35.07	70.4	14.7	
- Accrued Revenue	205.0		49.9	3.07	155.1	>100.0	205.0		197.8		7.2	3.6	
- EGAT (Export)	0.3	-	0.1	100.00	0.2	>100.0	0.3	-	0.1	-	0.2	>100.0	
- TNBI	202.4	88.42	185.7	108.41	16.7	9.0	202.4	88.42	135.2	91.29	67.2	49.7	
Sales of Electricity	13,605.1	40.36	13,351.2	40.11	253.9	1.9	13,605.1	40.36	12,255.5	39.97	1,349.6	11.0	
Other Regulatory Adjustment	(468.4)		(255.6)		(212.8)	83.3	(468.4)		(75.8)		(392.6)	>100.0	
SESB Tariff Support Subsidy	74.0		76.7		(2.7)	(3.5)	74.0		64.3		9.7	15.1	
Fuel Subsidy - SESB	73.2		74.5		(1.3)	(1.7)	73.2		65.0		8.2	12.6	
Total Sales of Electricity	13,283.9		13,246.8		37.1	0.3	13,283.9		12,309.0		974.9	7.9	
Goods & Services	249.7		294.7		(45.0)	(15.3)	249.7		204.6		45.1	22.0	
Construction contracts	34.5		35.9		(1.4)	(3.9)	34.5		40.7		(6.2)	(15.2)	
Customers' Contribution	72.3		74.6		(2.3)	(3.1)	72.3		71.3		1.0	1.4	
Total Revenue	13,640.4		13,652.0		(11.6)	(0.1)	13,640.4		12,625.6		1,014.8	8.0	

1 1QFY'24 vs 4QFY'23: Higher units sold and sales of electricity from commercial and domestic sectors.

1QFY'24 vs 1QFY'23: Higher units sold and sales of electricity across all sectors.

2 1QFY'24 vs 4QFY'23: Higher units sold due to higher irradiance (Vantage Solar) and acquisition of solar plant in Dec'23.

1QFY'24 vs 1QFY'23: Higher units sold from new acquisitions.

3 Refer Other Regulatory Adjustment slide.

4 Higher revenue recorded by subsidiaries.

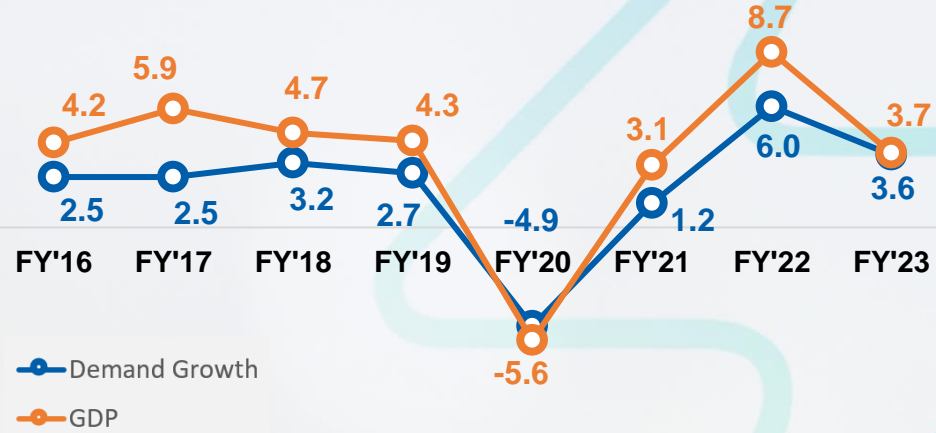
*Refer page 22 for details on TNBI

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

%

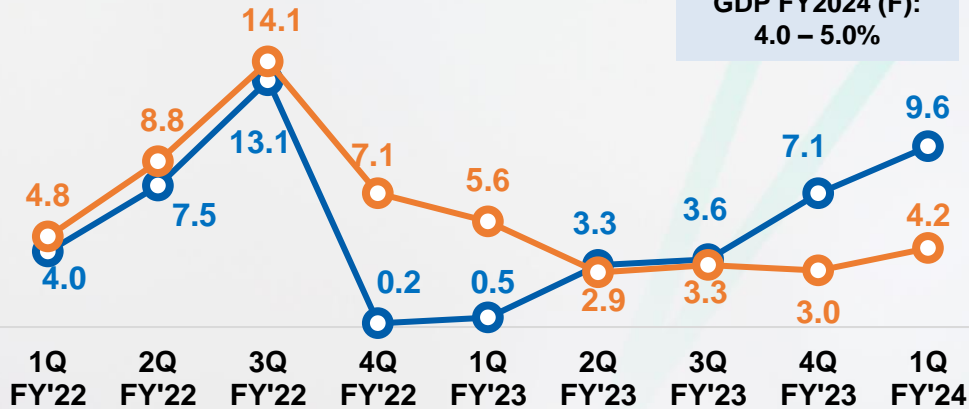
GDP & TNB Demand Growth

Full Year



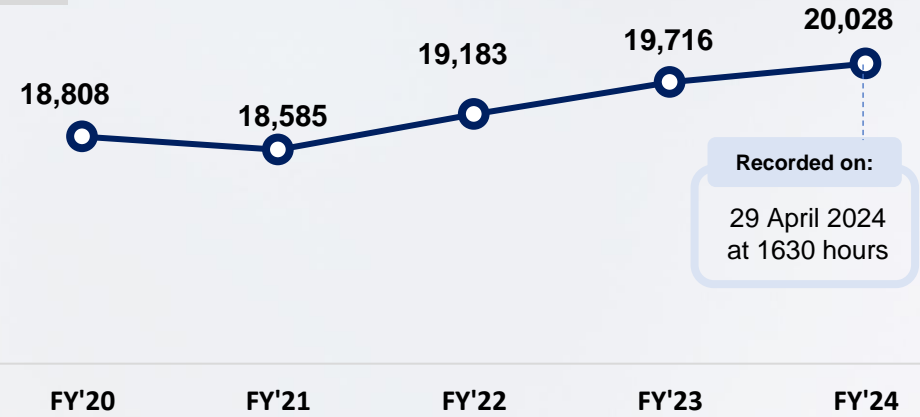
%

Year-on-Year



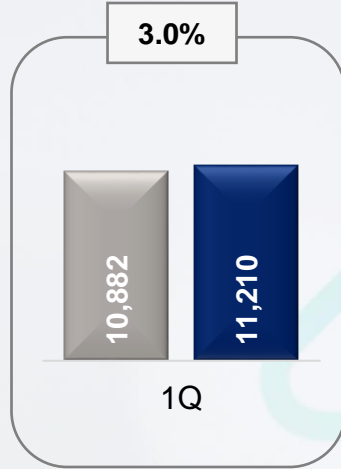
TNB (Peninsular) Yearly Peak Demand

MW



Increased demand across all sectors mainly contributed by commercial and domestic

Industrial



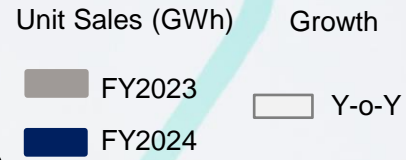
1QFY'24 main contributors for the increase in industrial & commercial sectors:

Industrial

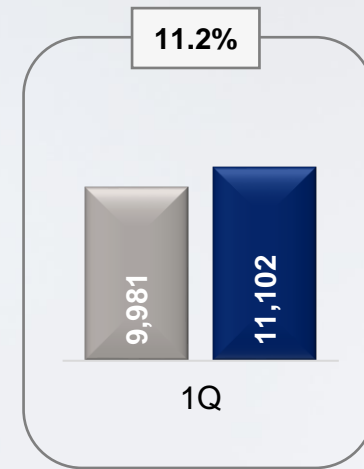
- Iron & steel, utility electrical and electronics

Commercial

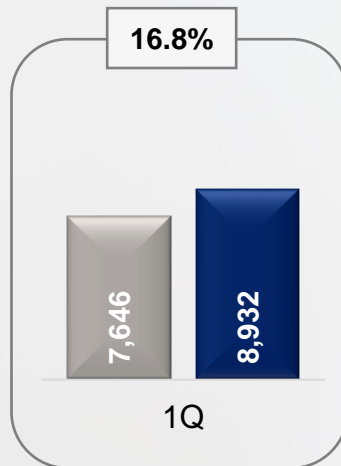
- Retails, business services and miscellaneous consumer products



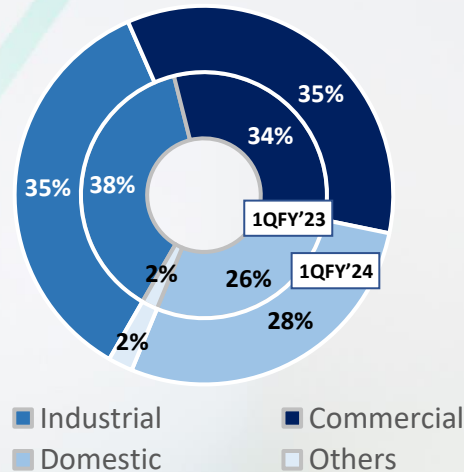
Commercial



Domestic

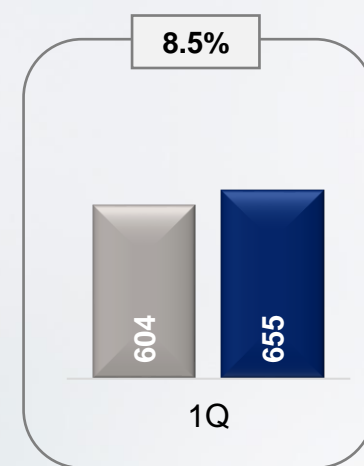


Sector Mix (%) 1QFY'24 vs 1QFY'23



Others*

*includes Agriculture, Mining & Public Lighting



As at 1QFY2024, other regulatory adjustment of RM468.4 mil to be returned

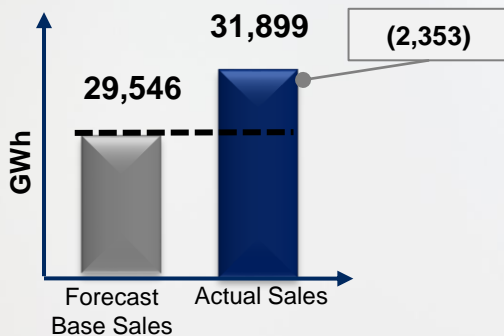
Components of Other Regulatory Adjustment

	1QFY'24 RM mil	1QFY'23 RM mil
Revenue Adjustment for Revenue Cap & Price Cap	1 (412.4)	(1.4)
Refund Related to Regulated Business	(66.7)	(71.1)
Regulatory Adjustment for SESB*	10.7	(3.3)
TOTAL	(468.4)	(75.8)

*SESB has implemented IBR framework starting 1January2022

Revenue Cap

1QFY'24 Variation in Sales (in GWh)

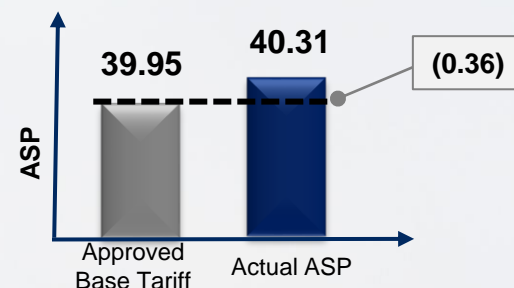


- The allowed annual revenue for revenue cap entities is based on 118.1TWh full year demand growth. Any excess/shortfall is adjusted through revenue adjustment mechanism.
- For 1QFY'24, higher actual sales has led to amount to be returned via revenue adjustment mechanism.

Business Entities	Allowed Tariff (sen/kWh)	Variation in Sales (GWh)	Adjustment RM mil
Revenue Cap Entities	12.60	(2,353)	(296.1)

Price Cap

1QFY'24 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 1QFY'24, 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	31,899	(0.36)	(116.3)

Lower Y-o-Y operating expenses due to lower fuel and power purchase cost

	1QFY'24	4QFY'23	Variance (1QFY'24 vs 4QFY'23)		1QFY'24	1QFY'23	Variance (1QFY'24 vs 1QFY'23)	
	RM mil	RM mil	RM mil	%	RM mil	RM mil	RM mil	%
Non-TNB IPPs Costs	4,233.4	3,992.1	241.3	6.0	4,233.4	3,708.3	525.1	14.2
Capacity Payment	41.3	47.7	(6.4)	(13.4)	41.3	(106.3)	147.6	(138.9)
Energy Payment	4,192.1	3,944.4	247.7	6.3	4,192.1	3,814.6	377.5	9.9
TNB Fuel Costs	4,334.9	4,552.3	(217.4)	(4.8)	4,334.9	5,491.1	(1,156.2)	(21.1)
Fuel Costs	4,351.4	4,457.0	(105.6)	(2.4)	4,351.4	6,141.7	(1,790.3)	(29.1)
Fuel Price Adjustment	(16.5)	95.3	(111.8)	>100.0	(16.5)	(650.6)	634.1	>(100.0)
Fuel Subsidy - SESB	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total OPEX - Fuel and Power Purchase	8,568.3	8,544.4	23.9	0.3	8,568.3	9,199.4	(631.1)	(6.9)
Staff Costs	952.0	1,033.5	(81.5)	(7.9)	952.0	938.3	13.7	1.5
Repair & Maintenance	692.2	874.5	(182.3)	(20.8)	692.2	621.1	71.1	11.4
TNB General Expenses	429.1	735.7	(306.6)	(41.7)	429.1	412.4	16.7	4.0
Subs. General Expenses	660.8	775.9	(115.1)	(14.8)	660.8	470.3	190.5	40.5
Total OPEX - Non Fuel	2,734.1	3,419.6	(685.5)	(20.0)	2,734.1	2,442.1	292.0	12.0
Total Operating Expenses (without Depreciation)	11,302.4	11,964.0	(661.6)	(5.5)	11,302.4	11,641.5	(339.1)	(2.9)
Depreciation & Amortisation	2,780.2	2,897.3	(117.1)	(4.0)	2,780.2	2,801.6	(21.4)	(0.8)
Total Operating Expenses	14,082.6	14,861.3	(778.7)	(5.2)	14,082.6	14,443.1	(360.5)	(2.5)

1

1QFY'24 vs 1QFY'23: Lower fuel and power purchase cost due to lower fuel prices (refer Fuel Cost slide).

2

Higher subsidiaries general expenses to commensurate the higher revenue recorded during the quarter.

Lower overall fuel costs due to lower fuel prices in 1QFY2024

Table A – TNB & IPP Fuel Costs for Peninsular (RM mil)

Fuel Type	1QFY'24		1QFY'23		Variance	
	RM mil	%	RM mil	%	RM mil	%
Coal	4,201.5		5,589.3		(1,387.8)	(24.8)
Gas	3,235.0		2,940.7		294.4	10.0
Distillate	58.7		37.0		21.7	58.8
Oil	13.4		1.7		11.7	>100
Total	7,508.6		8,568.7		(1,060.0)	(12.4)

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

Table B – TNB & IPP Units Generated for Peninsular (GWh)

Fuel Type	1QFY'24		1QFY'23		Variance	
	GWh	Gen. Mix	GWh	Gen. Mix	GWh	%
Coal	18,196.6	52.5%	16,914.5	53.7%	1,282.1	7.6
Gas & LNG	13,635.0	39.4%	12,441.3	39.5%	1,193.7	9.6
Distillate	45.7	0.1%	31.8	0.1%	13.9	43.8
Oil	-	0.0%	-	0.0%	-	-
Hydro	2,056.4	5.9%	1,591.4	5.1%	465.0	29.2
Solar	698.4	2.0%	504.7	1.6%	193.7	38.4
Total	34,632.1	100.0%	31,483.7	100.0%	3,148.3	10.0

Table C – Fuel Costs Related Data

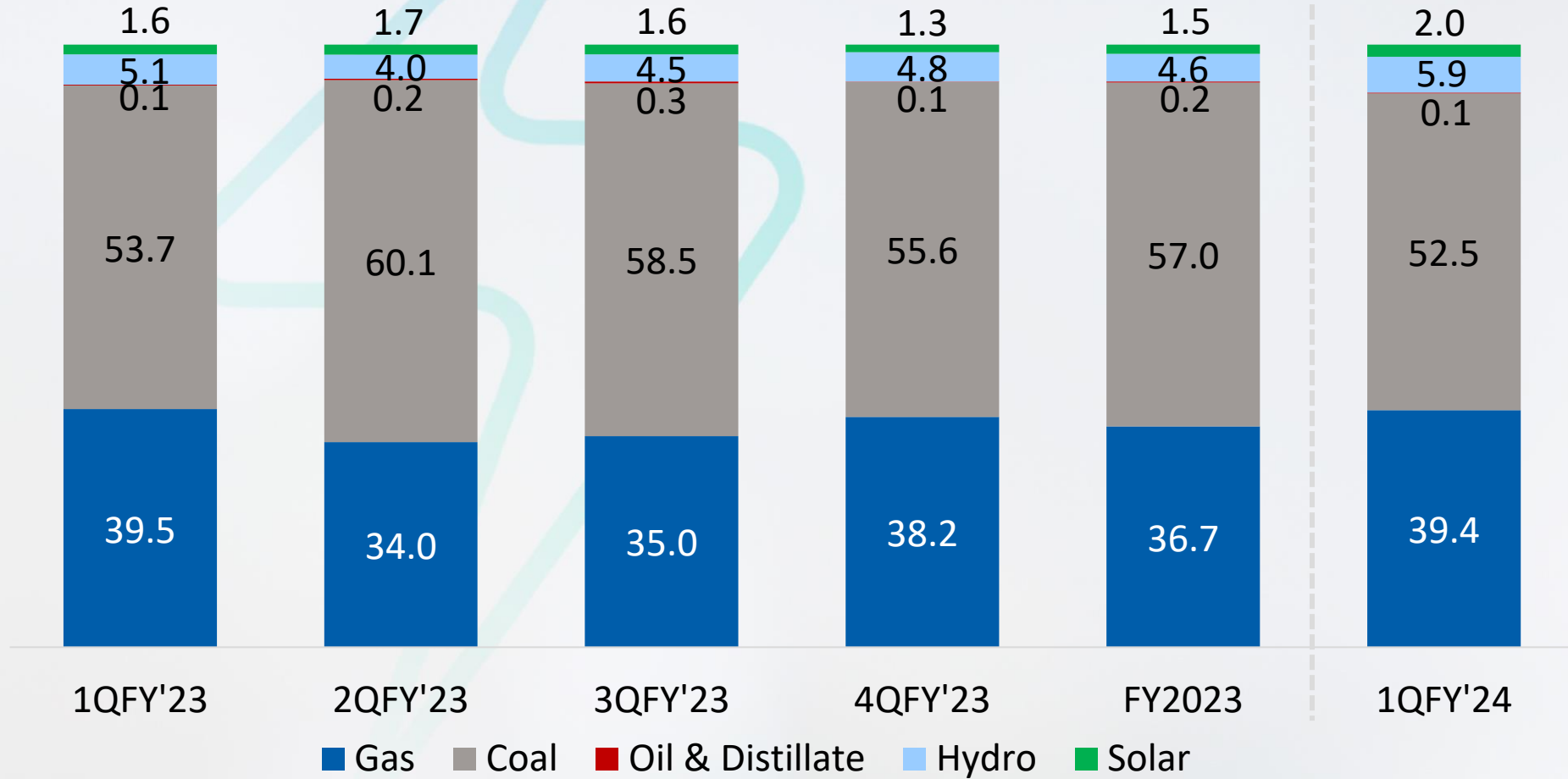
Fuel statistics	1QFY'24	1QFY'23
Average Coal Price Delivered (USD/MT)(CIF)	114.6	177.5
Average Coal Price Delivered (RM/MT)(CIF)	540.2	779.4
Coal Consumption (mil MT)	7.7	7.5
	1QFY24	1QFY23
Gas Reference Market Price (RM/mmbtu)	Tier 1 : 30.0	Tier 1 : 30.0
	Tier 2 : 44.7	Tier 2 : 62.1
Daily Average Piped Gas Volume (mmscfd)	1017	907

Table D – Average Coal Price Delivered (USD/MT)

	1QFY'24		1QFY'23		Variance	
	USD	%	USD	%	USD	%
FOB	105.3		167.1		(61.8)	(37.0)
Freight	8.8		10.0		(1.2)	(12.0)
Others	0.4		0.4		0.0	5.0
CIF	114.6		177.5		(62.9)	(35.5)

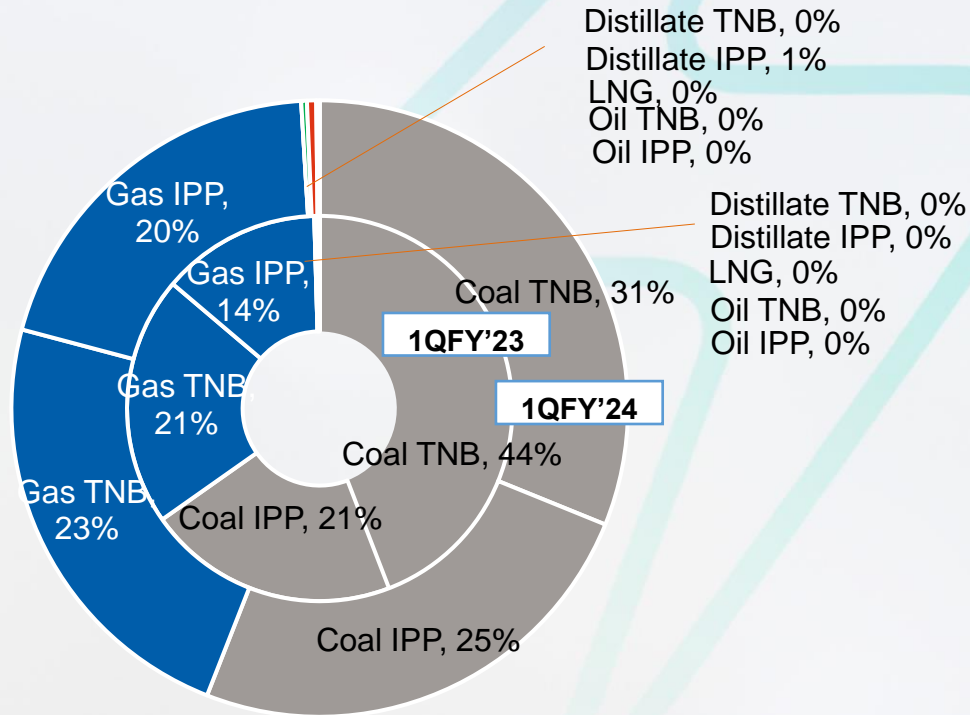
Q-o-Q: Higher generation from gas in 1QFY2024

Generation Mix for Industry (%)

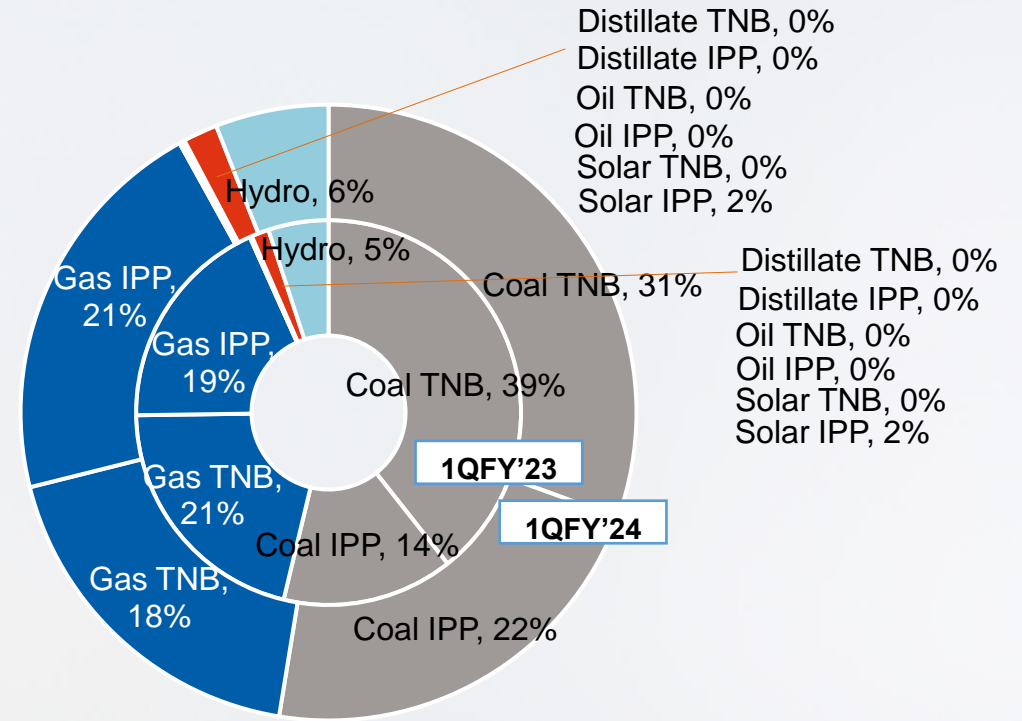


Fuel Costs & Units Generated (TNB & IPPs – Peninsular) in 1QFY2024

Fuel Costs



Units Generated



% indicates generation market share

■ Gas ■ Coal ■ Oil & Distillate ■ Hydro ■ Solar

Note: Fuel Costs exclude solar and hydro

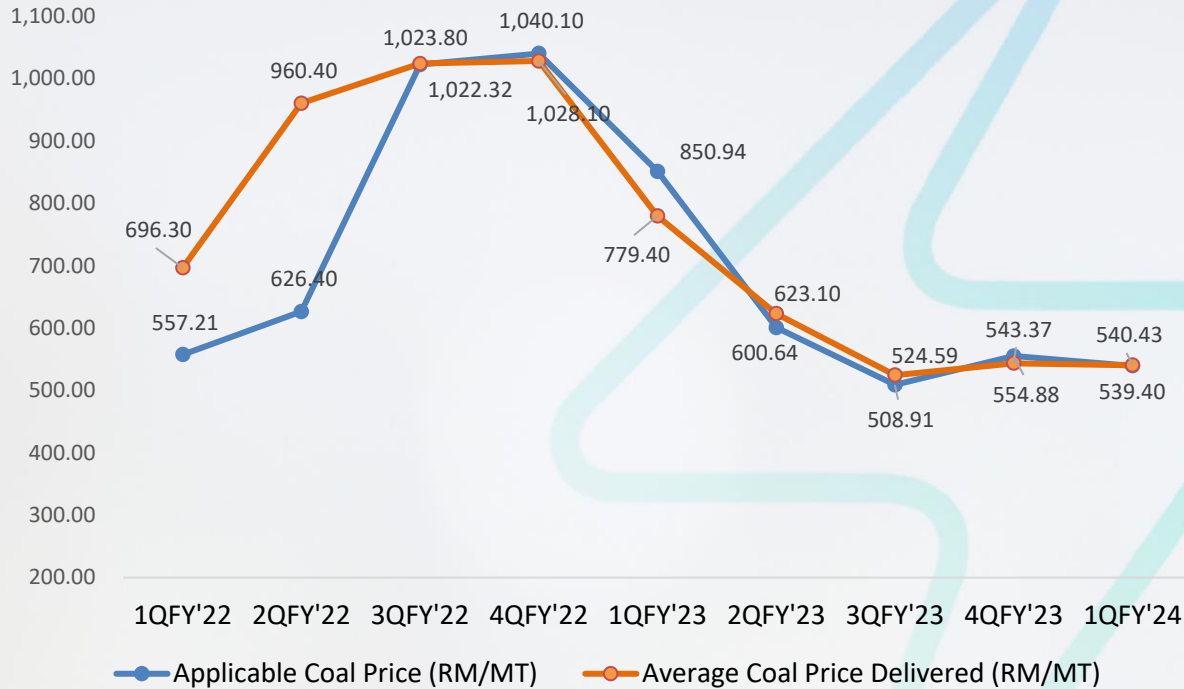
TNB is neutral to volatility in fuel costs under the ICPT framework



	1QFY'23 (RM mil)	2QFY'23 (RM mil)	3QFY'23 (RM mil)	4QFY'23 (RM mil)	1QFY'24 (RM mil)
Single Buyer Actual Generation Costs: (A)	11,260.0	11,022.4	10,238.5	10,357.3	10,710.6
<i>Actual Sales (GWh)</i>	29,113.2	31,153.3	31,448.1	31,491.4	31,899.4
<i>Single Buyer Tariff (RM/kWh)</i>	0.2620	0.2620	0.2620	0.2620	0.2620
Actual Gen Cost Recovered (RM mil) (B)	7,627.7	8,162.2	8,239.4	8,250.7	8,357.6
ICPT Surcharge / (Rebate) (C) (C = A – B)	3,632.3	2,860.2	1,999.1	2,106.6	2,353.0

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

Coal Price Trending



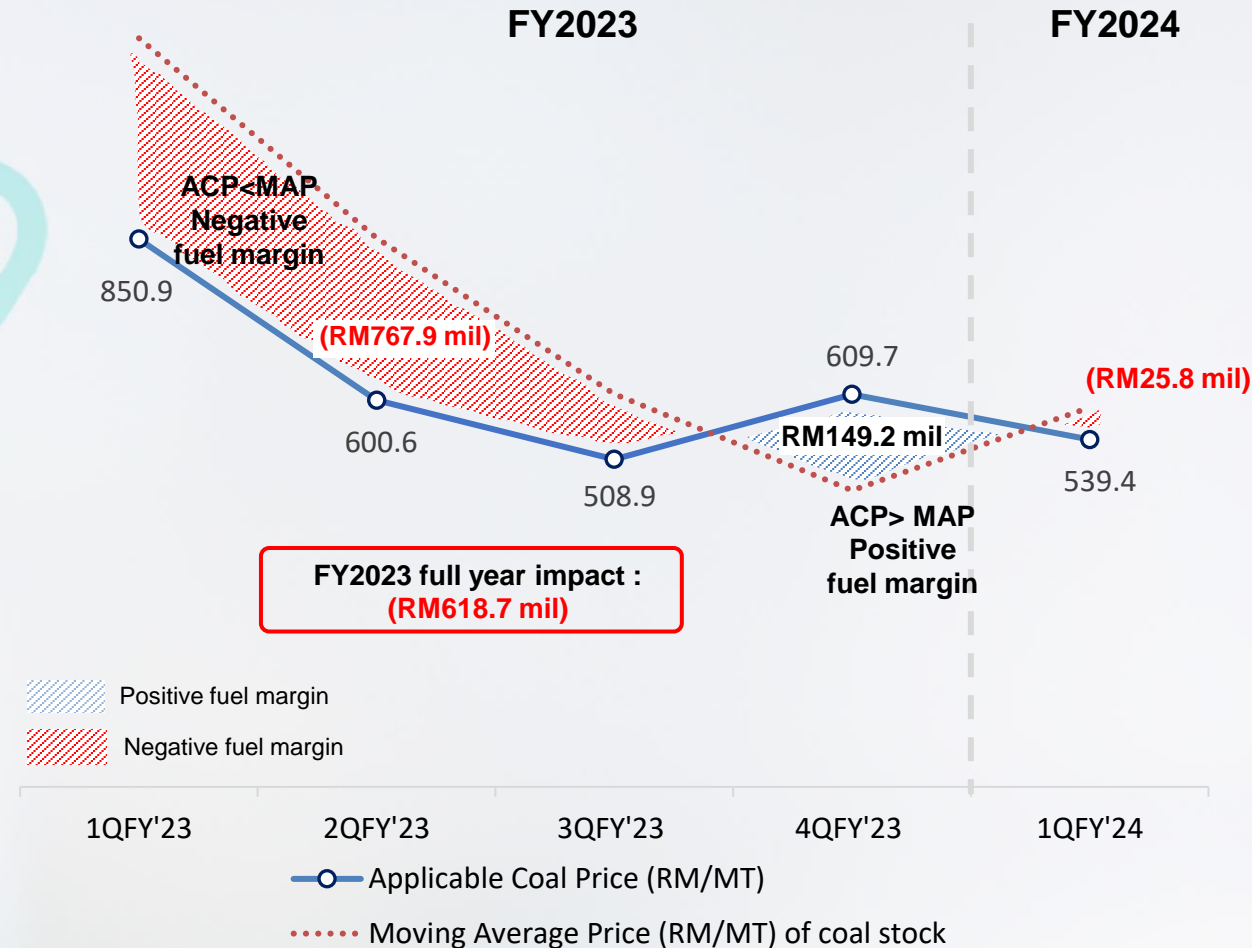
Coal Price & Applicable Coal Price (ACP) comparison

	1QFY'22	2QFY'22	3QFY'22	4QFY'22	1QFY'23	2QFY'23	3QFY'23	4QFY'23	1QFY'24
Average Coal Price Delivered (RM/mmbtu) *	31.88	46.76	48.88	44.96	35.85	29.43	24.31	24.36	24.81
ACP (RM/mmbtu)	25.53	28.70	46.84	47.65	38.77	27.52	23.32	25.42	24.73

* 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 1QFY'24, the base ACP (RM24.73/mmbtu) used for billing the generators was lower than the coal price paid to supplier (RM24.81/mmbtu).

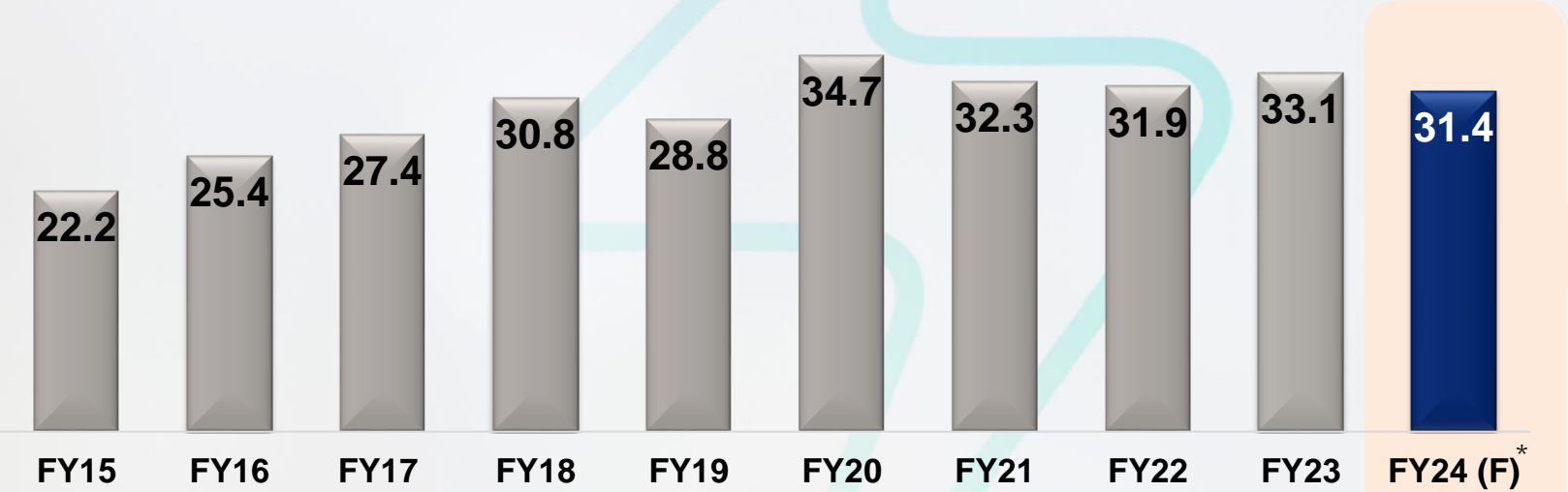
Fuel Margin: Applicable Coal Price (ACP) vs Moving Average Price (MAP)



Positive fuel margin
Negative fuel margin

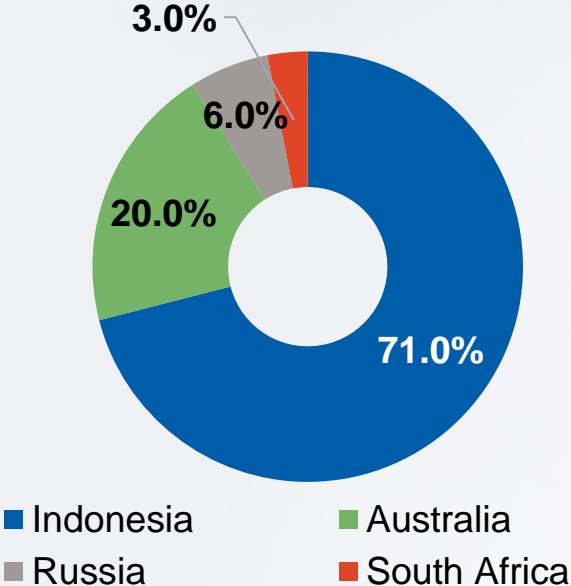
Industry coal requirement forecast for FY2024

Coal Consumption (mil MT)



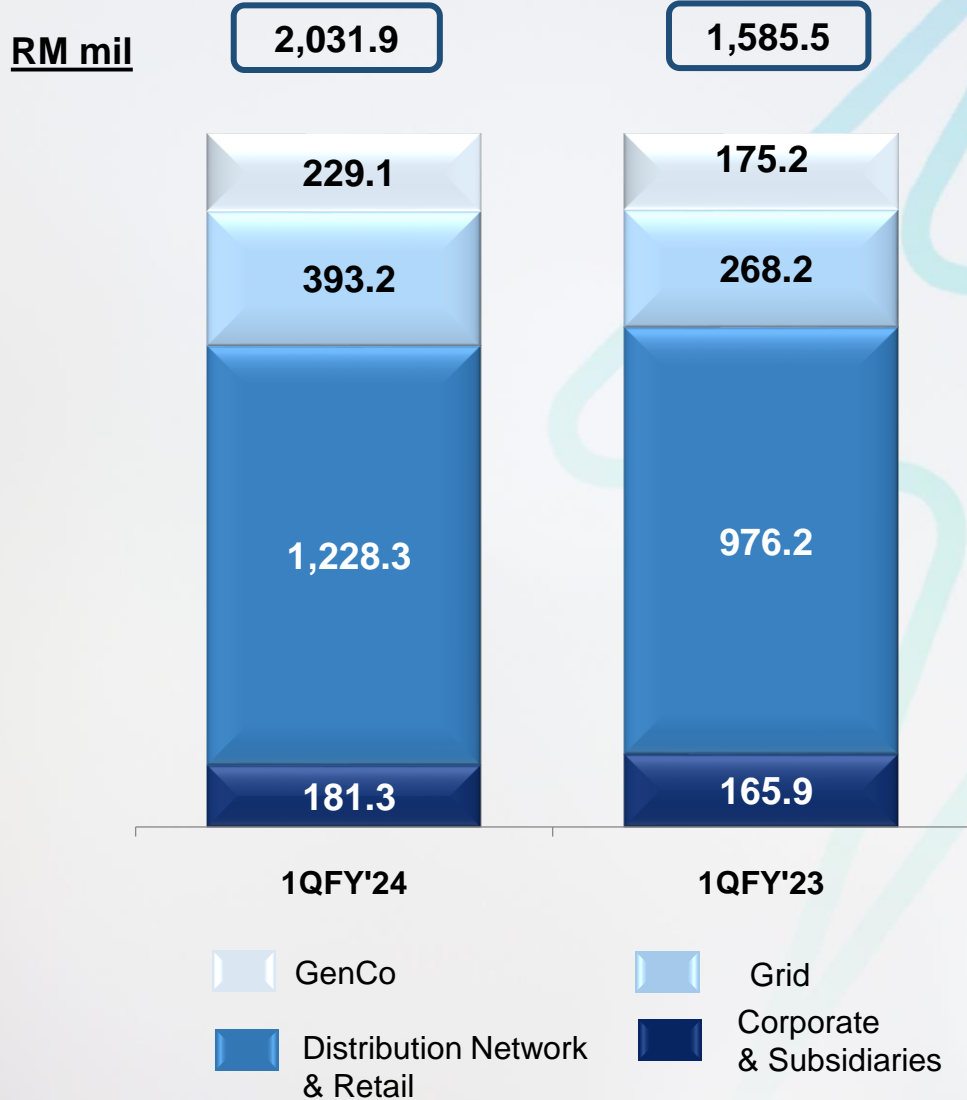
* Based on tonnage planned for delivery in FY2024

Source Country Mix



Group CAPEX

Regulated CAPEX and Regulated Asset Base (RAB)



FY	RP3 REGULATED ENTITIES CAPEX		
	IBR Approved RM mil	Actual YTD RM mil	Utilisation (%)
2024	6,413.3	1,623.4	25.3%

Total RAB (RM mil)	
Actual As at 31 Mar 2024	Approved FY2024
65,485.2	66,603.6

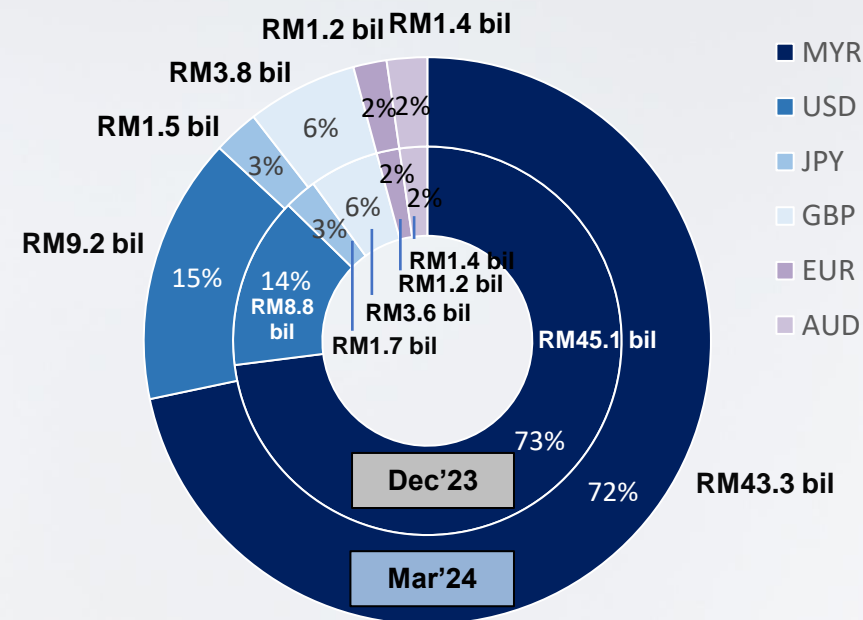

Regulatory net returns: RM1,144.1 mil

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


Gearing improved to 50.1% as at 1QFY2024

	31 Mar 2024	31 Dec 2023
Total Debt (RM bil)	60.4 ↓	61.8
Net Debt* (RM bil)	40.0	40.8
Gearing (%)	50.1 ↓	50.3
Net Gearing (%)	33.2	33.2


Loan Breakdown

4.79%
(FY'23: 4.75%)
**Effective Average
Cost of Borrowing****



93:7
(FY'23: 95:5)
**Fixed : Floating
Final Exposure**

 Closing FOREX	31 Mar 2024	31 Dec 2023
USD/RM	4.729	4.593
100YEN/RM	3.125	3.246
GBP/RM	5.967	5.854
AUD/RM	3.079	3.141
EUR/RM	5.094	5.083

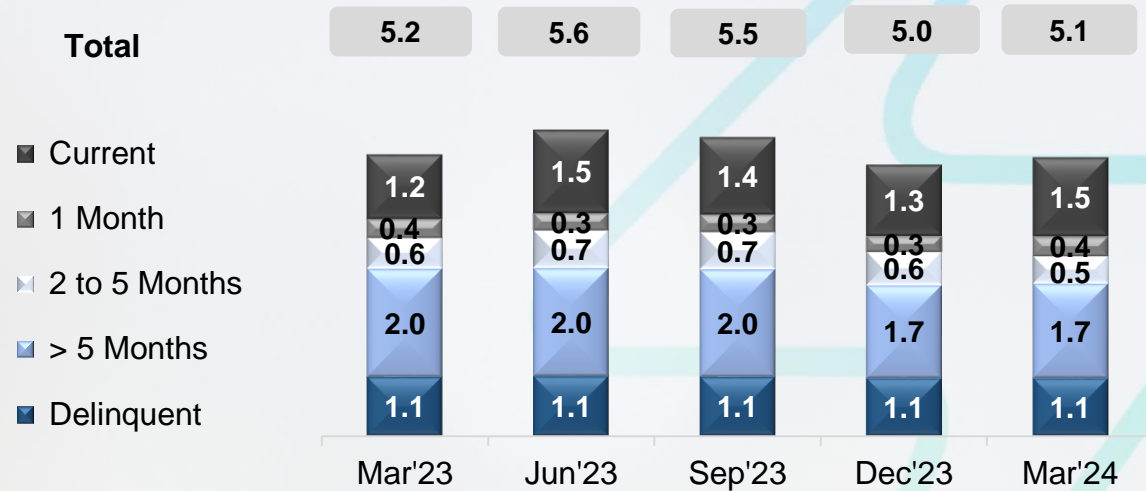
* Net Debt excludes deposits, bank and cash balances and investment in UTF

** Inclusive of interest rate swap

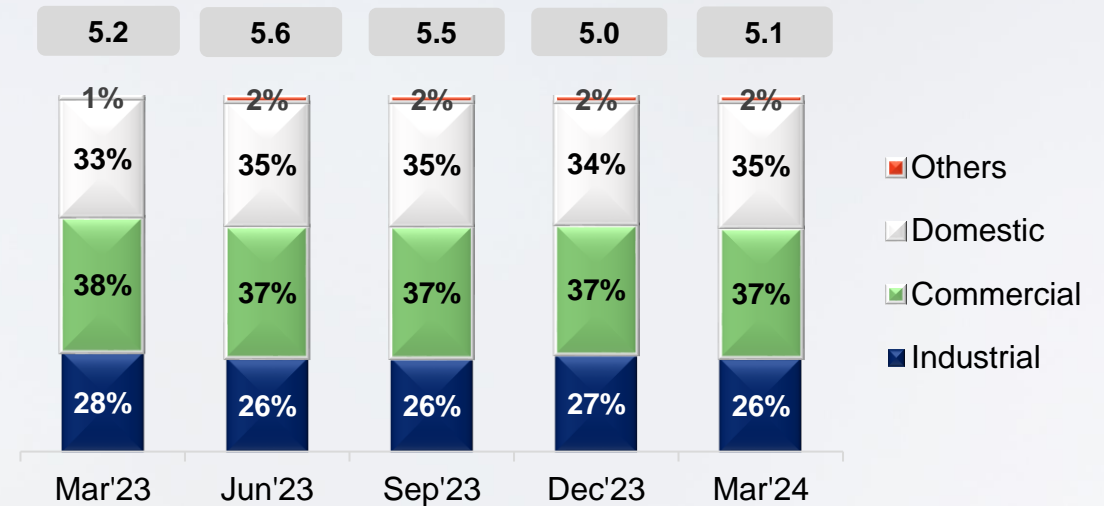
Note:
Debt consists of Principal + Accrued Interest

Trade receivables as at 1QFY2024

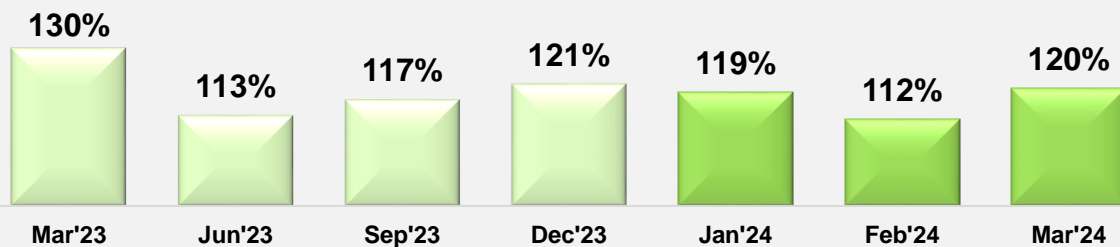
Trade Debtors Ageing (RM bil)



Trade Receivables By Sectors (RM bil)



Strong collection trend

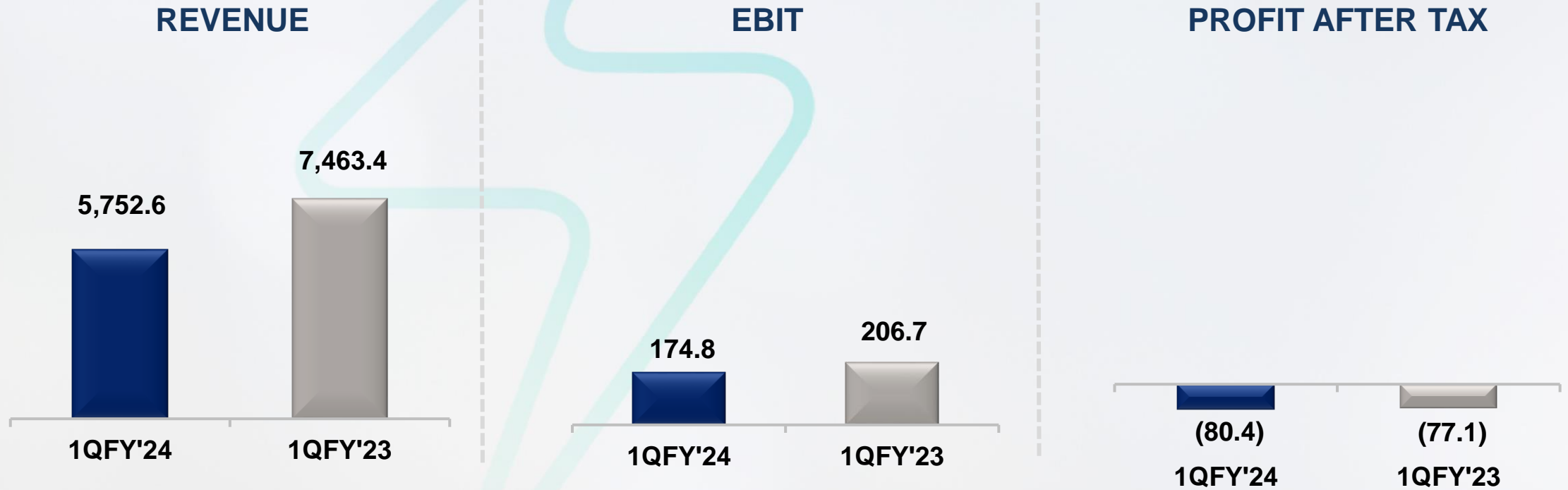


Cash flow

- We continuously monitor our cash flow position on a daily basis and remain prudent on our working capital management.
- **S&P Credit Rating upgraded to A- in May'24.**

Domestic generation business performance

RM mil

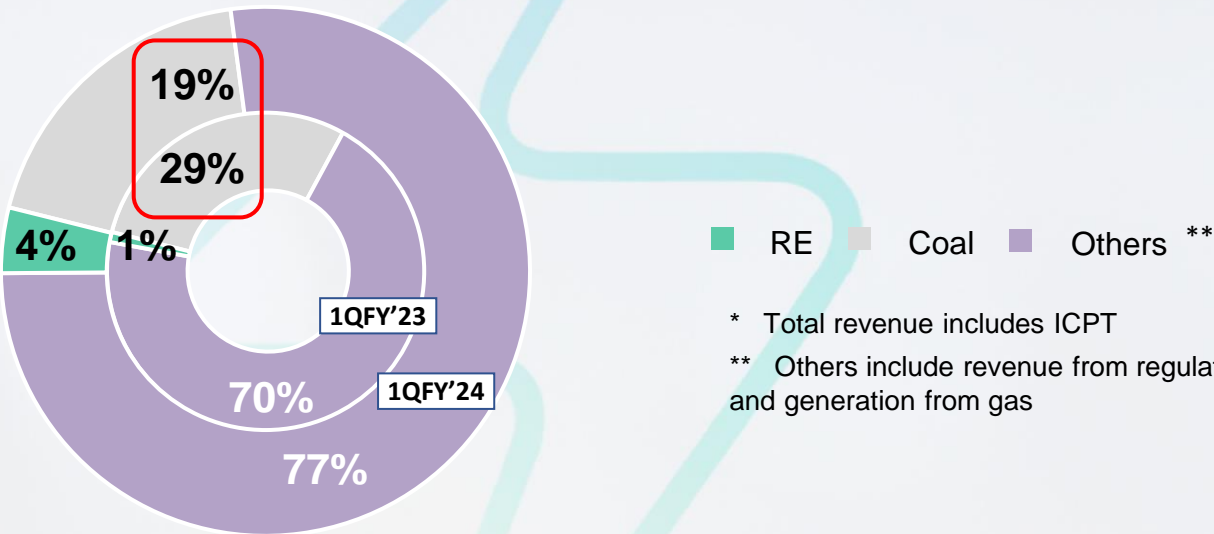


Lower EBIT and PAT mainly due to:

- Capacity payment loss, mainly from M4 (RM140.8 mil); and
- Higher tax expenses.

Revenue from coal recorded below 25% due to M4 outage

Actual Group Revenue*



RE Coal Others**

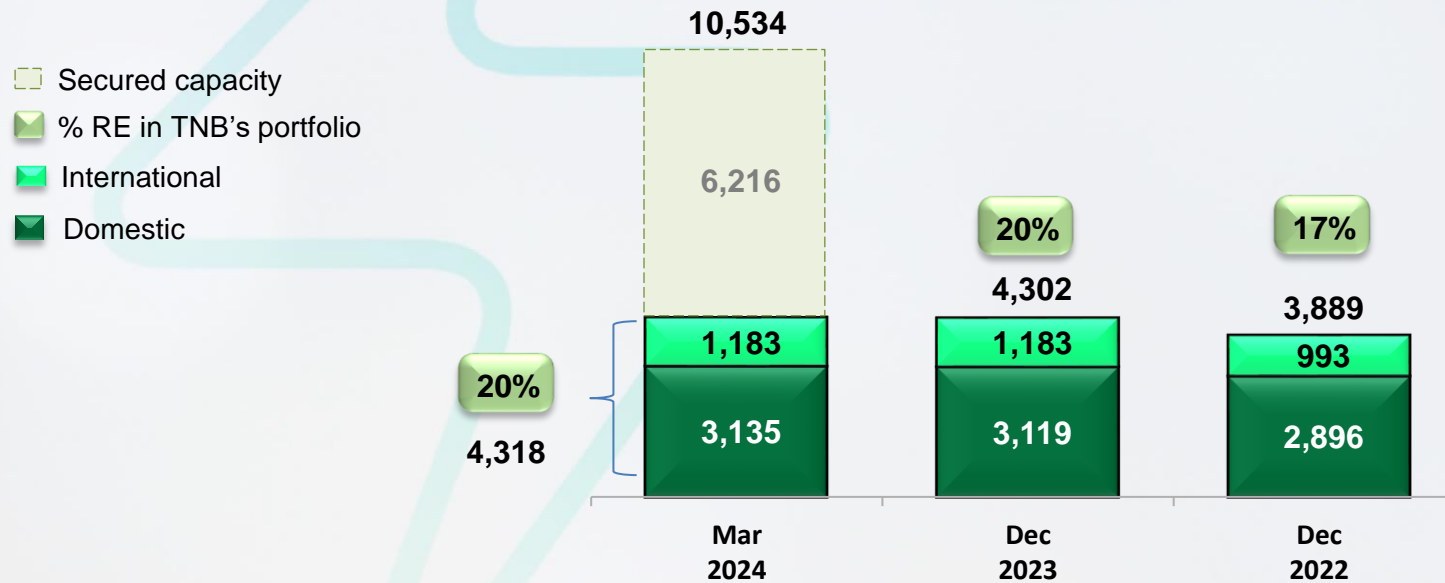
* Total revenue includes ICPT
 ** Others include revenue from regulated business, subsidiaries and generation from gas

 **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
- Solar capacity is quoted in MWp starting from 2QFY23
- Secured capacity includes in construction and development stages

International Investments: Renewable Energy (RE)

TNB International Sdn Bhd (TNBI)

Vantage RE



Spark Renewables



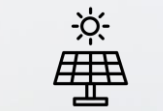
TNBI is a TNB wholly owned subsidiary incorporated under the laws of Malaysia.

TNBI is a platform focused on capturing renewable energy opportunities, attracting a broader range of financiers and partnerships and showing TNB's commitment to ESG.

TNBI is anchored by Vantage RE with ~1GW RE portfolio (operational and under construction) and Spark Renewables.

An agile organisation spearheading TNB's Energy Transition initiative via contribution towards supporting key milestones in TNB's Net Zero 2050 journey.

Technology Focus:



Solar farms



Onshore wind



Offshore wind

+



Battery Energy Storage System (BESS)

TNB INTERNATIONAL SDN BHD

Financial Performance

Higher EBITDA Y-o-Y (1QFY'24: RM 116.9mil vs 1QFY'23 RM93.6 mil) due to:

- Additional contribution from newly acquired solar portfolio in the Ireland (276MW) in December 2023 and higher locked-in PPA prices in 2024 within Vantage portfolio.

TNBI 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 also exploring alternative revenue mechanisms, such as Contract-for-Difference (CfD) scheme, corporate Power Purchase Agreements (PPAs) and 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 the TNB Group.
- TNBI will also be looking to increase in-house EPC capabilities to enhance the development of greenfield projects, maximising efficiency and control throughout the project lifecycle.



SHUAIBAH

Financial Performance

Higher Y-o-Y EBITDA 1QFY'24 RM170.9 mil (SAR135.8 mil) vs 1QFY'23 RM134.3 mil (SAR115.0 mil) due to lower direct operating cost and lower general & admin expenses in March 2024.

Outlook:

Shuaibah remains largely unimpacted by the Russia-Ukraine war as the Power and Water Purchase Agreement (PWPA) has been contracted for 20 years with the Saudi Government as the offtaker. Shuaibah's performance is expected to remain positive with a consistent dividend distribution to shareholders.

Financial Performance

Lower Y-o-Y EBITDA 1QFY'24 RM139.4 mil (TRY 850.2 mil) vs 1QFY'23 RM207.8 mil (TRY846.2 mil) due to Turkish Lira depreciation. However, the EBITDA in Turkish lira terms is higher Y-o-Y due to hyperinflationary adjustments.

Outlook:

In March 2024, the annual inflation rate in Turkey rose to 68.5% from 67.07%. The Central Bank of Turkey then raised its interest rate from 45% in February to 50% in March to curb inflation. Turkish Lira remains depressed against the US dollar, trading at 32.57TRY/USD. However, the Turkish government's adoption to conventional economic policies has stabilised the currency's depreciation.

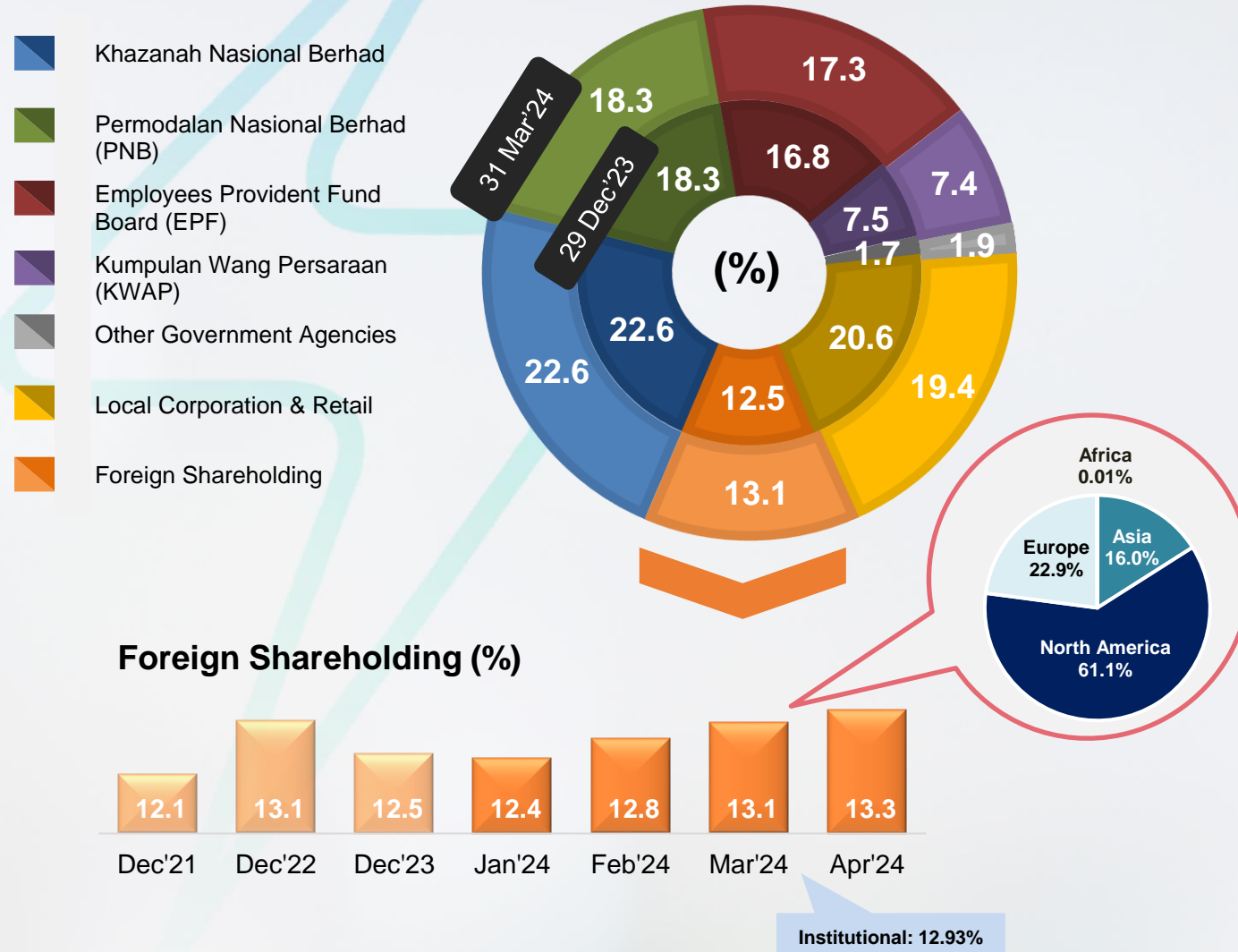
This situation has no impact on GEAS's debt portfolio, as its Lira debt at ICAN is fixed at a 10% interest rate. Nonetheless, GEAS management is closely monitoring market developments and preparing for potential scenarios for the remainder of 2024, including implementing cost efficiency measures to meet payment obligations.



GAMA ENERJİ A.Ş.

GAMA Enerji A.S.
(GEAS)

Shareholdings



Disclaimer

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