Analysts Briefing

1QFY2023

30 May 2023

TENAGA NASIONAL
Better. Brighter.

Improved earnings despite challenging environment

REVENUE
(RM mil)

1QFY2023
RM12,625.6
+3.9%

1QFY2022: RM12,153.1

- Improved Y-o-Y electricity demand growth of +0.8% (Group) mainly from:
  - Sales of electricity of CEI UK Ltd (acquired in April 2022).
  - Peninsular Malaysia of 0.5% from commercial sector.

EBITDA
(RM mil)

1QFY2023
RM4,883.7
(4.9%)

EBITDA MARGIN: 38.7%

1QFY2022: RM5,137.8
EBITDA MARGIN: 42.3%

- EBITDA margin has dropped to 38.7% from 42.3% as compared to the same period last year.
- Driven by higher non-generation cost resulted from repair and maintenance expenses.
- Impact of high coal price volatility.
- Impact of tariff structure (levelised/nominal) over the regulatory period.

PAT
(RM mil)

1QFY2023
RM930.9
+6.9%

1QFY2022: RM871.2

- PAT improved due to lower tax expense in 1QFY23 (1QFY22 impacted by Prosperity Tax of RM113.9 mil).

Group earnings supported by; (i) Improved generation business (ii) World-class network performance

Equivalent Plant Availability Factor, EAF (Generation)
%

1QFY2023

84.41%

1QFY2022: 80.54%

2023 Target: 81.80%

EAF performance secured **generation assets' capacity revenue**

System Minutes (Transmission)
Minutes

1QFY2023

0.01

1QFY2022: 0.01

2023 Internal Threshold: 2.00

SAIDI (Distribution Network)
Minutes

1QFY2023

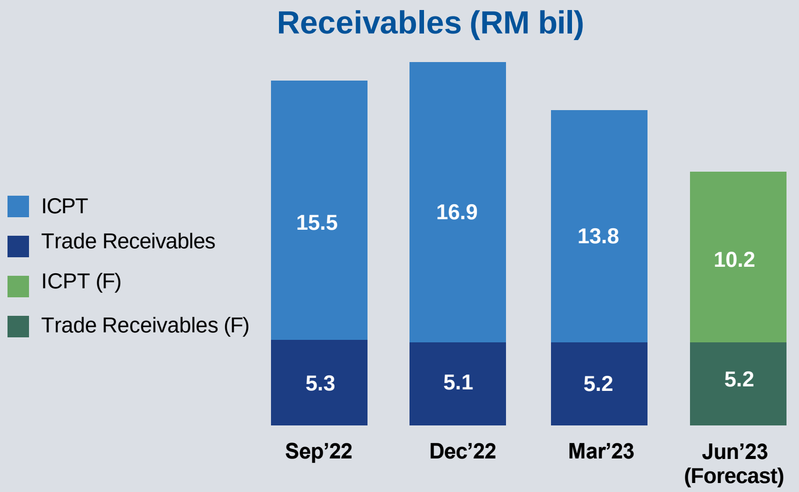
9.49

1QFY2022: 11.74

2023 Internal Threshold: 53.0

World class network performance safeguarded our regulated business earnings

Effective working capital management alleviates pressures from high fuel prices



- Going forward, pressure on ICPT receivables is expected to ease given current fuel price trends and Government upholding the IBR framework.
- Coal price has moderated from 345.93 USD/MT* in June 2022 to 165.06 USD/MT* in April 2023.

** Source: globalCOAL Newcastle index*

1 ICPT Cost Recovery (1HFY2023)

RM5.3 bil
To date

TNB will fully recover the total RM16.2 bil net imbalance cost via:

- The ICPT surcharge passed-through to non-domestic customers (at 3.70 sen/kWh and 20.0 sen/kWh).
- Cost recovery from the Government of **RM10.4 bil.**
  - Received RM4.0 bil and RM1.28 bil in January & May 2023 respectively.
  - To be paid in stages and fully recovered by June 2023.

2 Improvement in Ageing Profile of Receivables in 1QFY2023

- Improvement in average collection period (ACP) and ageing profile.
- Good collection trends (collection rate >100% since March 2022).

3 ICPT Outlook

~RM9.0 bil

- ICPT to be recovered in 2HFY2023 is forecasted to be around RM9.0 bil given current fuel price trends.
- ICPT mechanism is intact & TNB remains neutral.

2023 continue to be another exciting year to pursue our Net Zero 2050 aspirations

Electricity Demand

Latest demand growth is 1.7% (120,933 GWh)*

(IBR reference: 116,367 GWh)

Group CAPEX Forecast

Total Group CAPEX :

RM12.8 bil

Regulated capex* : **RM7.0 bil**

Others** : **RM5.8 bil**

** ET Related capex of RM2.5 bil (includes system improvement CAPEX)*

*** Major projects, subsidiaries and corporate*

Capital Management

- Proactive working capital management in current high fuel prices environment
- Funding for growth

Delivering Value to our Shareholders

We will continue to honour our dividend policy of 30% - 60% dividend payout ratio, based on adjusted PATAMI

Sustainable Growth

Ensuring business growth as we progress towards being a leading provider of sustainable energy solutions

** Source: Planning and Implementation Committee for Electricity Supply and Tariff*

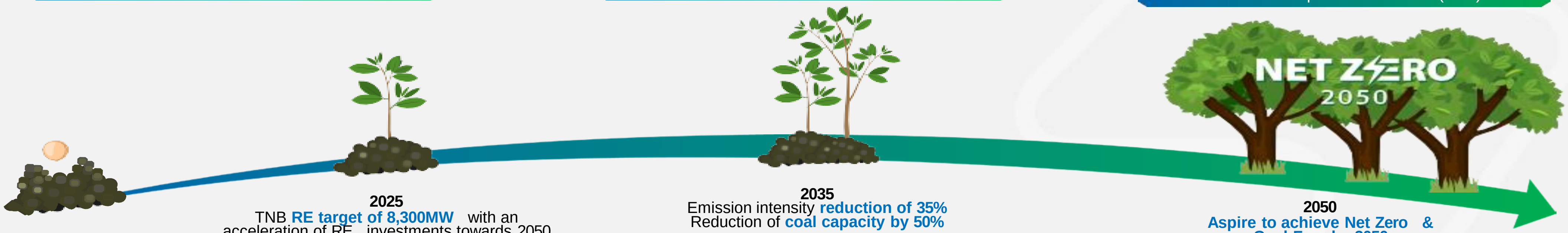
We are committed to our Energy Transition Plan – The journey towards Net Zero 2050 Aspiration will bring positive business growth and enhance value to our shareholders

Net Zero 2050 Aspiration

Our Target for 2025
- Build scale in renewable generation
- Improve thermal plant efficiency

Our Commitment to 2035
- Significant renewable generation growth
- 50% reduction in coal generation capacity

Our Aspiration to 2050
Invest and grow our emerging green technologies including Hydrogen and Carbon Capture & Utilisation (CCU)

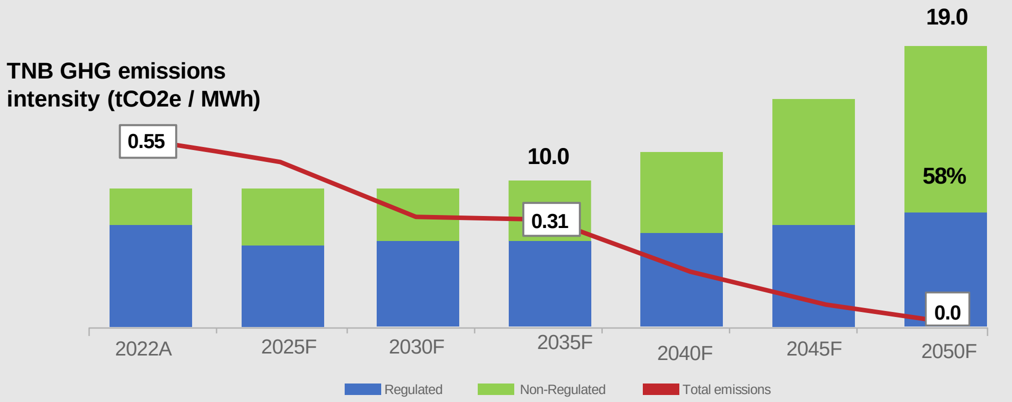


2025
TNB **RE target of 8,300MW** with an acceleration of RE investments towards 2050

2035
Emission intensity **reduction of 35%**
Reduction of **coal capacity by 50%**

2050
Aspire to achieve Net Zero & Coal-Free by 2050

EBIT Projection



Projected EBIT (RM bil)

Future Generation Sources & New Green Business

Grid of The Future

Ranked 1st in the region and **42nd in the overall international** ranking for Global ESG Monitor

We believe our pathway will bring positive business growth to the Group while **creating long-term value to our shareholders** through earnings growth.

Looking ahead into 2023, we will continue to drive our strategic initiatives in reaching our Net Zero commitments while ensuring business growth

Energy Sources — GenCo

Hydro

Sungai Perak LEP Project (650.75MW)
- Finalised New PPA

Nenggiri Hydro Project (300MW)
- COD: Q2 2027
- % of completion as of Apr'23: 27.7%

Gas

Paka Repowering (1,400MW)
- Establishment of Feasibility Study

New Combined Cycle Gas Turbine Kapar (2,100MW)
- Collaborative Agreement with partner

FY2023: ~RM1.5 bil

Recent Collaboration

REMACO — A subsidiary of TNB Power Generation

MOU between TNB Repair and Maintenance Sdn. Bhd. (TNB REMACO) and North Power Service Joint Stock Company (EVNNPS)

Energy Vector — Grid

1 Regional Interconnection:

Malaysia – Singapore Interconnection
- Currently, finalising other relevants agreements and licensing, and plant preparation is in progress.

Collaboration with PT Perusahaan Listrik Negara (PLN)
- Discussions are still on-going
- The land for the converter station has been identified and secured at Telok Gong, Melaka.

Collaboration with Electricity Generating Authority of Thailand (EGAT)
- Joint Working Committee (JWC) was formed to conduct the feasibility study with target completion of August 2023

FY2023 ET Related CAPEX: ~RM2.5 bil

Recent Collaboration

Electricite Du Laos (EDL)

Saigon Gia Dinh Electric Joint Stock Company (EHCMC)

Energy Vector

Our collaboration with GDS signals positive demand and system growth for TNB in Malaysia

2

Pipeline Data Centre Projects with maximum demand of 4,300MW

- High Voltage demand has rapidly increased in Malaysia mainly from the manufacturing companies and hyperscale data centres.
- TNB has secured data centre (DC) investments in Malaysia from major companies around the globe with a total maximum demand of 760MW to date.
- **DCs have requested for green energy to be provided into their facility as part of ESG initiatives for their companies.**

TNB aims to provide beyond-kWh solutions including solar roof top solutions, Green Energy Tariff (GET) and cooling solutions

- **Solar PV Rooftop Solution via GSPARX**
- **Fiber Connectivity Network via Allo**
- **Provide Data Centre or IT based company with high cooling power consumption via TNEC**
- **Offers Green Electricity Tariff**

TNB's Strategic Collaboration & Partnership with GDS's Data Centre

TNB

GDS

- TNB and GDS collaboration, via an Electricity Supply Agreement (ESA), was sealed in October 2022 to fulfil the power requirement of GDS's data centre campus at the Nusajaya Tech Park in Johor Bahru.
- GDS Data centre is expected to start operations with an interim supply of 16MW in mid-2023.
- Plans are underway to ensure the increased maximum demand of 85.5MW is delivered within 2023.
- TNB is fully committed in delivering timely and reliable electricity supply to the project within the agreed timeframe.

Energy Usage

TNB is committed to strengthening the Electric Vehicle Ecosystem towards the proliferation of EVs in Malaysia

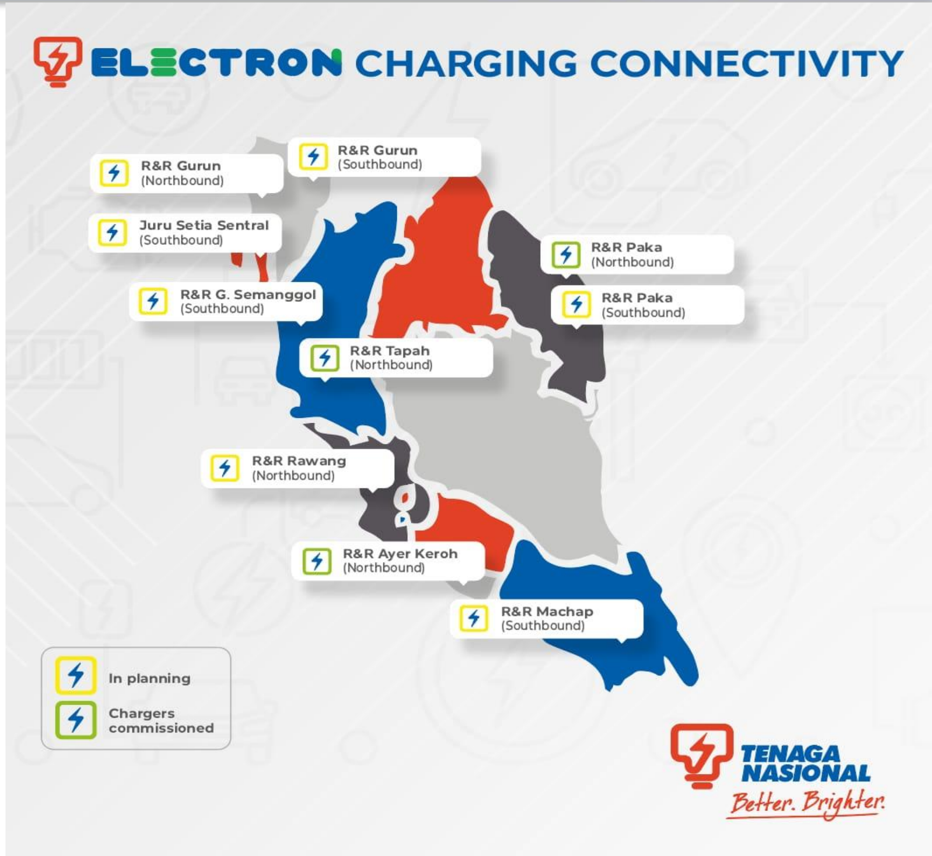
1

Electric Vehicle (EV) Ecosystem

16 February 2023: Launching of the first TNB Electron vehicle charging facility at Ayer Keroh (Northern Direction)

2023 Outlook : **TNB to invest ~RM31 million in 2023 to spur the development of EV ecosystem and fleet electrification**

- Deployment of 40 EV chargers along Peninsular highway and trunk roads. To date, TNB has identified 21 locations along highway roads and trunk roads.
- Collaborate with local petrol stations on EV chargers at Peninsular trunk roads.
- Development of TNB Electron Hub with Gamuda.
- Electrification of TNB fleet.



3 electron charging stations installed to date

7 additional upcoming charging stations in 2023

Energy Usage

GSPARX provides the 'extra' push on renewable energy penetration while growing TNB's revenue source

2

Collaboration with AEON

- GSPARX is collaborating with AEON for the installation of rooftop solar PV systems across 40 AEON and AEON BiG shopping malls nationwide.
- Installation agreement is the **largest to date** for GSPARX with a total capacity of **78MWp.**
- GSPARX installed the first PV facility back in October 2022 at AEON Alpha Angle, Wangsa Maju. The 1,513kWp PV solar was installed on the rooftop and the open car park at ground level.
- For 2023, GSPARX will install the PV solar facilities at 11 AEON Malls. The installation of solar systems at all 40 AEON and AEON BiG shopping centres nationwide will be completed by the end of 2024.

GSPARX aims to secure additional ~145MWp for 2023

Rapid growth since inception	**1,926** Projects secured	**272** MWp capacity	**RM70 mil** 2023 Expected Revenue

Energy Usage

TNB will continue cultivating a generation of energy-literate society that contributes to the sustainability of the country's energy industry

3

Target Group

MELP
Malaysia Energy Literacy Program
TENAGA MILIK SEMUA

- Government Ministries Regulator MPs
- Customers, Consumers & Public
- School students & Youths
- Key Influencers
- Media

Key Areas

- Energy 101
- Sustainability, RE, Energy transition
- Energy efficiency
- EV adoption
- Consumer literacy
- Electrical safety

2023 Key Programmes

- **Safety Programmes**, collaboration with Energy Commission
- **Energy modules** with universities (UNITEN & UKM)
- **Kempen Kesedaran Pengguna Bijak Tenaga,** collaboration with Ministry of Education to produce webinars
- **Collaboration** with FOMCA on Smart & Sustainable Living Campaign and Smart Meter Campaign; and Persatuan Pengguna Islam Malaysia (PPIM) to produce educational videos
- **E-learning module for TNB employees**

Focus Topics / Syllabus

Energy 101
- Energy Value Chain
- Incentive Based Regulation (IBR) framework

Consumer literacy
- Imbalance Cost Pass-Through (ICPT)
- Energy Efficiency, Electrical Safety, Smart Meter and myTNB

Energy of the future:
- Sustainability & Energy Transition
- Telecommunication
- Electric Vehicle

Advance energy topics:
- Innovation and Technology
- Smart Grid

Appendix

1Q FY2023

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

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

RM mil		1QFY23	1QFY22	Variance RM mil	Variance %
Revenue	1	12,625.6	12,153.1	472.5	3.9
Imbalance Cost Pass Through (ICPT)		3,632.3	3,505.4	126.9	3.6
Operating expenses (without depreciation)	2	(11,641.5)	(10,663.6)	(977.9)	9.2
Net gain / (loss) on impairment of financial instruments	3	48.7	(35.7)	84.4	>(100.0)
Other operating income		218.6	178.6	40.0	22.4
EBITDA		**4,883.7**	**5,137.8**	**(254.1)**	**(4.9)**
EBITDA Margin (%)		38.7%	42.3%	-	(3.6)
Depreciation		(2,801.6)	(2,768.2)	(33.4)	1.2
EBIT		**2,082.1**	**2,369.6**	**(287.5)**	**(12.1)**
Foreign exchange:					
- Transaction (loss) / gain		(1.5)	0.3	(1.8)	>(100.0)
- Translation gain / (loss)		28.1	42.7	(14.6)	(34.2)
Share of results of joint ventures		0.9	6.0	(5.1)	(85.0)
Share of results of associates		22.1	30.0	(7.9)	(26.3)
Profit before finance cost		**2,131.7**	**2,448.6**	**(316.9)**	**(12.9)**
Fair value changes of financial instrument		(8.0)	40.2	(48.2)	>(100.0)
Finance income		98.6	46.2	52.4	>100.0
Finance cost	4	(1,119.6)	(1,003.0)	(116.6)	11.6
Profit from ordinary activities before taxation		**1,102.7**	**1,532.0**	**(429.3)**	**(28.0)**
Taxation and Zakat:					
- Company and subsidiaries	5	(150.4)	(529.9)	379.5	(71.6)
- Deferred taxation	6	(21.4)	(130.9)	109.5	(83.7)
Profit for the period		**930.9**	**871.2**	**59.7**	**6.9**
Attributable to:					
- Owners of the Company		1,002.3	893.1	109.2	12.2
- Non-controlling interests		(71.4)	(21.9)	(49.5)	>100.0
Profit for the period		**930.9**	**871.2**	**59.7**	**6.9**

Y-o-Y analysis:

1. Higher Group revenue driven by sales demand growth of 0.8% and sales of electricity of CEI UK Ltd (acquired in April 2022).
2. Higher operating expenses was mainly driven by higher generation costs.
3. Includes write back of allowance for doubtful debts (ADD) provision, with a net impact of RM47.2 mil (1QFY22 ADD of RM53.6 mil).
4. Higher finance cost due to interest on higher borrowings, mainly for working capital to fund higher fuel costs.
5. Lower tax expense in 1QFY23 due to higher reinvestment allowance (RA) claim and one-off Prosperity Tax impact in 1QFY22.
6. Deferred tax movement resulted from decrease in capital allowances and increase in accrued revenue.

Quarter vs previous quarter (1QFY23 vs 4QFY22) analysis

RM mil		1QFY23	4QFY22	Variance RM mil	Variance %
Revenue	1	12,625.6	12,915.1	(289.5)	(2.2)
Imbalance Cost Pass Through (ICPT)	2	3,632.3	6,397.7	(2,765.4)	(43.2)
Operating expenses (without depreciation)	3	(11,641.5)	(15,105.1)	3,463.6	(22.9)
Net gain / (loss) on impairment of financial instruments		48.7	26.9	21.8	81.0
Other operating income		218.6	263.2	(44.6)	(16.9)
EBITDA		**4,883.7**	**4,497.8**	**385.9**	**8.6**
EBITDA Margin (%)		38.7%	34.8%		3.9
Depreciation		(2,801.6)	(2,997.8)	196.2	(6.5)
EBIT		**2,082.1**	**1,500.0**	**582.1**	**38.8**
Foreign exchange:					
- Transaction (loss)/gain		(1.5)	2.0	(3.5)	>(100.0)
- Translation gain/(loss)	4	28.1	358.8	(330.7)	(92.2)
Share of results of joint ventures		0.9	2.0	(1.1)	(55.0)
Share of results of associates		22.1	(6.9)	29.0	>(100.0)
Profit before finance cost		**2,131.7**	**1,855.9**	**275.8**	**14.9**
Fair value changes of financial instrument		(8.0)	5.6	(13.6)	>(100.0)
Finance income		98.6	97.8	0.8	0.8
Finance cost		(1,119.6)	(1,142.6)	23.0	(2.0)
Profit from ordinary activities before taxation		**1,102.7**	**816.7**	**286.0**	**35.0**
Taxation and Zakat:					
- Company and subsidiaries	5	(150.4)	192.1	(342.5)	>(100.0)
- Deferred taxation	6	(21.4)	(200.9)	179.5	(89.3)
Profit for the period		**930.9**	**807.9**	**123.0**	**15.2**
Attributable to:					
- Owners of the Company		1,002.3	809.1	193.2	23.9
- Non-controlling interests		(71.4)	(1.2)	(70.2)	>100.0
Profit for the period		**930.9**	**807.9**	**123.0**	**15.2**

Q-o-PrevQ analysis:

1. Lower revenue mainly due to lower Group's sales of electricity and lower SESB Fuel subsidy (the full year amount was reclassified as revenue in 4QFY22, previously recorded as OPEX).
2. Lower ICPT surcharge due to lower coal price.
3. Lower OPEX was mainly due to lower generation costs.
4. Lower translation gain due to strengthening of USD.
5. Current tax expense in 4QFY22 includes higher capital allowances & reinvestment allowances.
6. Deferred tax movement resulted from decrease in capital allowances and increase in accrued revenue.

Y-o-Y normalised EBITDA & PAT for 1QFY23

EBITDA Components		1QFY23 RM mil	1QFY22 RM mil
Reported EBITDA		4,883.7	5,137.8
MFRS16 impact	1	(1,082.1)	(1,073.4)
Normalised EBITDA	2	3,801.6	4,064.4

PAT Components		1QFY23 RM mil	1QFY22 RM mil
Reported PAT		930.9	871.2
Forex Translation gain		(28.1)	(42.7)
MFRS16 impact	1	181.2	249.6
Normalised PAT		1,084.0	1,078.1

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MFRS16 impact:

	1QFY23 (RM mil)	1QFY22 (RM mil)	Variance (RM mil)
Capacity Payment	1,082.1	1,073.4	8.7
Depreciation	(900.5)	(955.3)	54.8
Finance Cost	(416.6)	(441.3)	24.7
Deferred Tax	53.8	73.6	(19.8)
Net Impact	**(181.2)**	**(249.6)**	**68.4**

2

Lower normalised EBITDA in 1QFY23 (refer Slide 2 for details).

Higher Y-o-Y sales of electricity and contribution from subsidiaries, mainly driven by stronger economic growth and CEI UK acquisition

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UNITS SOLD	1QFY23 GWh	4QFY22 GWh		Variance (1QFY23 vs 4QFY22) GWh	Variance (1QFY23 vs 4QFY22) %	1QFY23 GWh	1QFY22 GWh		Variance (1QFY23 vs 1QFY22) GWh	Variance (1QFY23 vs 1QFY22) %
Sales of Electricity (GWh)										
- TNB	29,113.2	29,415.1	1	(301.9)	(1.0)	29,113.2	28,959.3	1	153.9	0.5
- SESB	1,402.0	1,433.0		(31.0)	(2.2)	1,402.0	1,384.3		17.7	1.3
- EGAT (Export)	0.1	0.2		(0.1)	-	0.1	0.2		(0.1)	(50.0)
- TNBI (UK Wind)	24.1	23.5		0.6	2.6	24.1	26.5		(2.4)	(9.1)
- TNBI (Vortex)	47.7	38.8		8.9	22.9	47.7	58.3	2	(10.6)	(18.2)
- TNBI (CEI UK LTD)	76.3	74.0		2.3	3.1	76.3	-	3	76.3	100.0
Total Units Sold (GWh)	**30,663.4**	**30,984.6**		**(321.2)**	**(1.0)**	**30,663.4**	**30,428.6**		**234.8**	**0.8**

REVENUE	1QFY23 RM mil	1QFY23 Sen/kWh	4QFY22 RM mil	4QFY22 Sen/kWh		Variance (1QFY23 vs 4QFY22) (RM mil)	Variance (1QFY23 vs 4QFY22) %	1QFY23 RM mil	1QFY23 Sen/kWh	1QFY22 RM mil	1QFY22 Sen/kWh		Variance (1QFY23 vs 1QFY22) (RM mil)	Variance (1QFY23 vs 1QFY22) %
Sales of Electricity (RM)														
- TNB	11,443.6	39.94	11,735.3	39.83	1	(291.7)	(2.5)	11,443.6	39.94	11,290.1	40.10	1	153.5	1.4
- Sales Discount	-		-			-	-	-		(2.2)			2.2	(100.0)
- SESB	478.8	35.07	492.3	34.37		(13.5)	(2.7)	478.8	35.07	468.3	34.70		10.5	2.2
- Accrued Revenue	197.8		(20.4)			218.2	>(100.0)	197.8		153.0			44.8	29.3
- EGAT (Export)	0.1	-	0.2	-		(0.1)	(50.0)	0.1	-	0.3	-		(0.2)	(66.7)
- TNBI (UK Wind)	35.5	147.30	34.4	146.38		1.1	3.2	35.5	147.30	37.1	140.00		(1.6)	(4.3)
- TNBI (Vortex)	34.8	72.96	26.0	67.01		8.8	33.8	34.8	72.96	46.7	80.10		(11.9)	(25.5)
- TNBI (CEI UK LTD)	64.9	85.06	70.6	95.41		(5.7)	(8.1)	64.9	85.06	-	-		64.9	100.0
Sales of Electricity	**12,255.5**	**39.97**	**12,338.4**	**39.82**		**(82.9)**	**(0.7)**	**12,255.5**	**39.97**	**11,993.3**	**39.41**		**262.2**	**2.2**
Other Regulatory Adjustment	(75.8)		(98.7)			22.9	(23.2)	(75.8)		(156.7)		4	80.9	(51.6)
Relief Package from Government	-		-			-	-	-		0.6			(0.6)	(100.0)
SESB Tariff Support Subsidy	64.3		68.7			(4.4)	(6.4)	64.3		63.9			0.4	0.6
Fuel Subsidy - SESB	65.0		265.8		5	(200.8)	(75.5)	65.0		-		5	65.0	100.0
Total Sales of Electricity	**12,309.0**		**12,574.2**			**(265.2)**	**(2.1)**	**12,309.0**		**11,901.1**			**407.9**	**3.4**
Goods & Services	204.6		219.5			(14.9)	(6.8)	204.6		148.0		6	56.6	38.2
Construction contracts	40.7		49.2			(8.5)	(17.3)	40.7		37.5			3.2	8.5
Customers' Contribution	71.3		72.2			(0.9)	(1.2)	71.3		66.5			4.8	7.2
Total Revenue	**12,625.6**		**12,915.1**			**(289.5)**	**(2.2)**	**12,625.6**		**12,153.1**			**472.5**	**3.9**

1. 1QFY23 vs 4QFY22: Lower units sold and sales of electricity from industrial and commercial sectors.

   1QFY23 vs 1QFY22: Higher units sold and sales of electricity mainly from commercial sector.

2. 1QFY23 vs 1QFY22: Lower generation mainly due to lower irradiance.

3. 1QFY23 vs 1QFY22: Acquisition of 97.3MW onshore wind portfolio (UK) in April 2022.

4. Refer Other Regulatory Adjustment slide.

5. 1QFY23 vs 4QFY22: Lower SESB fuel subsidy as the full year amount for FY22 was reclassified as revenue in 4QFY22, previously recorded as OPEX.

   Reported as Revenue in 4QFY22 due to IBR implementation in SESB.

6. Higher revenue recorded by subsidiaries.

As at 1QFY23, other regulatory adjustment of RM75.8 mil to be returned

Components of Other Regulatory Adjustment	4QFY22 (RM mil)	1QFY23 (RM mil)	1QFY22 (RM mil)
1 Revenue Adjustment for Revenue Cap & Price Cap	(21.7)	(1.4)	(44.2)
Refund Related to Regulated Business	(79.8)	(71.1)	(113.1)
Regulatory Adjustment for SESB*	2.8	(3.2)	0.6
TOTAL	**(98.7)**	**(75.8)**	**(156.7)**

*SESB has implemented IBR framework starting 1 January 2022

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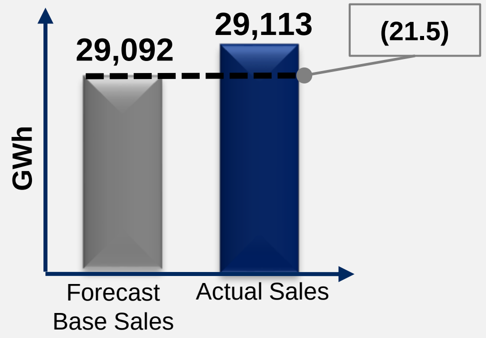
Revenue Cap

1QFY23 Variation in Sales (in GWh)

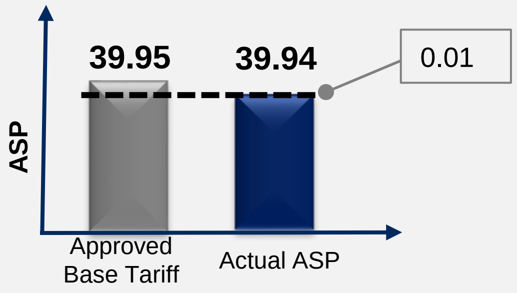


- The allowed annual revenue for revenue cap entities is based on 19.4TWh demand growth. Any excess/shortfall is adjusted through revenue adjustment mechanism.
- For 1QFY23, higher actual sales has led to amount to be returned via revenue adjustment mechanism.

Business Entities	Allowed Tariff (sen/kWh)	Variation in Sales (GWh)	Adjustment (RM mil)
Revenue Cap Entities	12.60	(21.5)	(2.7)*

Price Cap

1QFY23 Variation in ASP (sen/kWh)



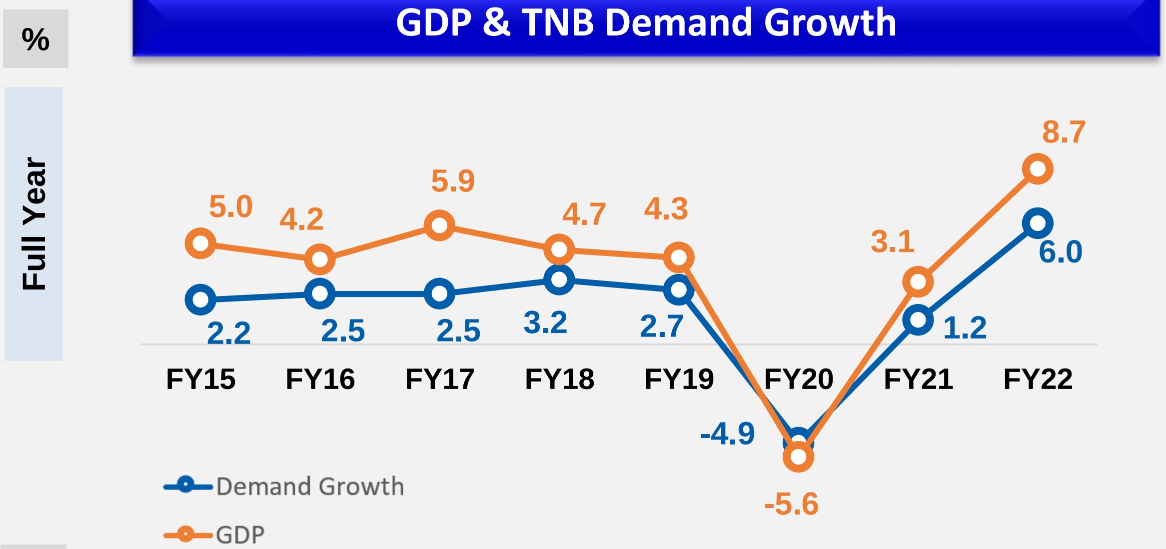
- Any excess/shortfall of revenue earned due to higher/lower Average Selling Price (ASP) compared to Base Tariff is adjusted through revenue adjustment mechanism.
- For 1QFY23, the ASP recorded was lower than the Base Tariff, leading to recovery adjustment via revenue adjustment mechanism.

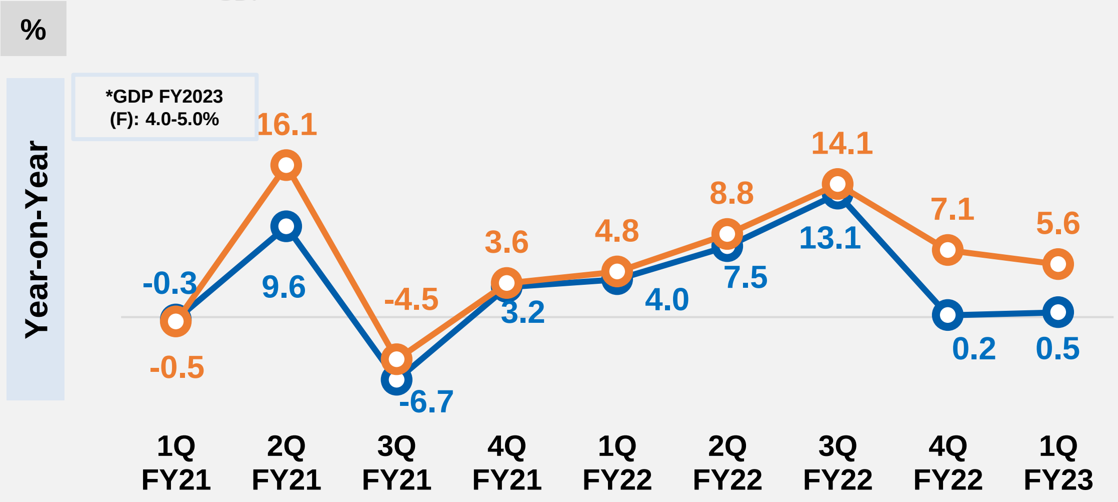
Business Entities	Actual Sales (GWh)	Variation in ASP (sen/kWh)	Adjustment (RM mil)
Price Cap Entity	29,113	0.01	1.3*

** Numbers manually computed will not match due to decimal variance*

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

GDP & TNB Demand Growth



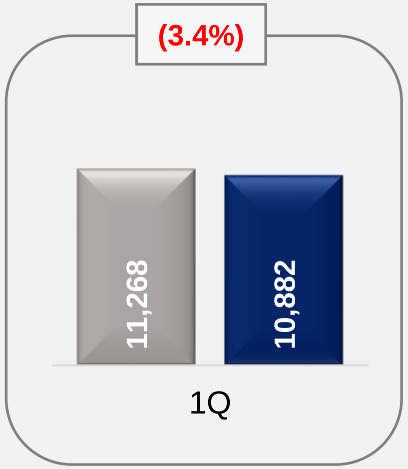


TNB (Peninsular) Yearly Peak Demand

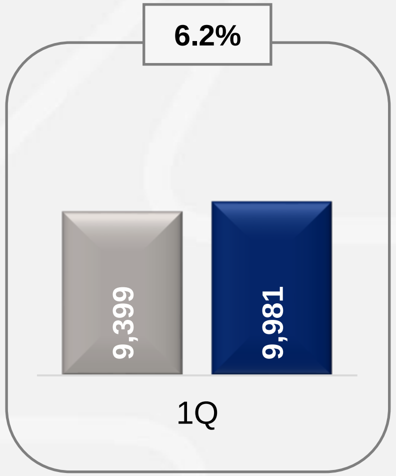
Source : Economic and Financial Developments in Malaysia in the First Quarter of 2023, BNM

Stable Y-o-Y electricity demand mainly contributed by commercial sector

Industrial



Commercial



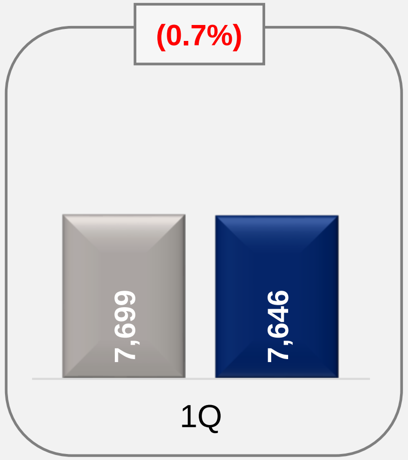
1QFY23 main contributors for the increase in commercial sector:

- Retails, educational & health services

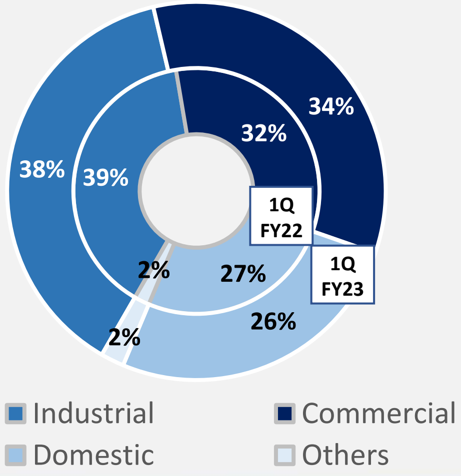
Unit Sales (GWh) Growth

2022
2023
Y-o-Y

Domestic

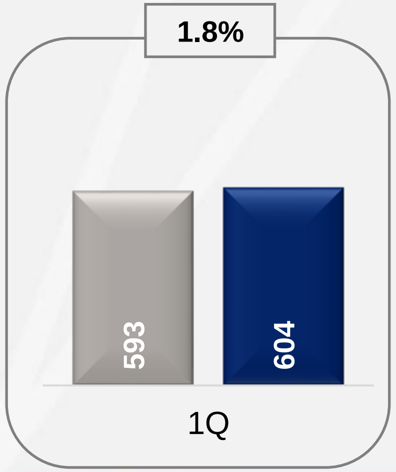


Sector Mix (%) 1QFY23 vs 1QFY22



Others*

includes Agriculture, Mining & Public Lighting



Higher Y-o-Y operating expenses due to increase in generation cost

	1QFY23 (RM mil)	4QFY22 (RM mil)	Variance (1QFY23 vs 4QFY22)		1QFY23 (RM mil)	1QFY22 (RM mil)	Variance (1QFY23 vs 1QFY22)	
			RM mil	%			RM mil	%
Non-TNB IPPs Costs	**3,708.3**	**5,097.7**	**(1,389.4)**	**(27.3)**	**3,708.3**	**3,440.6**	**267.7**	**7.8**
Capacity Payment	(106.3)	(58.4)	(47.9)	82.0	(106.3)	(99.2)	(7.1)	7.2
Energy Payment	3,814.6	5,156.1	(1,341.5)	(26.0)	3,814.6	3,539.8	274.8	7.8
TNB Fuel Costs	**5,491.1**	**6,955.1**	**(1,464.0)**	**(21.0)**	**5,491.1**	**4,926.5**	**564.6**	**11.5**
Fuel Costs	6,141.7	6,322.7	(181.0)	(2.9)	6,141.7	4,040.9	2,100.8	52.0
Fuel Price Adjustment	(650.6)	179.5	(830.1)	>(100.0)	(650.6)	1,007.6	(1,658.2)	>(100.0)
Fuel Subsidy - SESB 1	0.0	452.9	(452.9)	(100.0)	0.0	(122.0)	122.0	(100.0)
Total Cost of Generation	**9,199.4**	**12,052.8** 2	**(2,853.4)**	**(23.7)**	**9,199.4**	**8,367.1**	2 **832.3**	**9.9**
Staff Costs	**938.3**	**979.1**	**(40.8)**	**(4.2)**	**938.3**	**925.4**	**12.9**	**1.4**
Repair & Maintenance	**621.1**	**692.5**	**(71.4)**	**(10.3)**	**621.1**	**475.1**	3 **146.0**	**30.7**
TNB General Expenses	**412.4**	**694.9**	**(282.5)**	**(40.7)**	**412.4**	**442.1**	**(29.7)**	**(6.7)**
Subs. General Expenses	**470.3**	**685.8**	**(215.5)**	**(31.4)**	**470.3**	**453.9**	**16.4**	**3.6**
Total Non-Generation Cost	**2,442.1**	**3,052.3** 4	**(610.2)**	**(20.0)**	**2,442.1**	**2,296.5**	**145.6**	**6.3**
Total Operating Expenses (without Depreciation)	**11,641.5**	**15,105.1**	**(3,463.6)**	**(22.9)**	**11,641.5**	**10,663.6**	**977.9**	**9.2**
Depreciation & Amortisation	**2,801.6**	**2,997.8**	**(196.2)**	**(6.5)**	**2,801.6**	**2,768.2**	**33.4**	**1.2**
Total Operating Expenses	**14,443.1**	**18,102.9**	**(3,659.8)**	**(20.2)**	**14,443.1**	**13,431.8**	**1,011.3**	**7.5**

1. Reported as Revenue in 4QFY22 due to IBR implementation in SESB.

2. 1QFY23 vs 4QFY22: Lower generation cost mainly due to lower coal prices (Average coal price delivered: USD177.5/MT vs USD222.4/MT).

   1QFY23 vs 1QFY22: Higher generation cost mainly due to higher fuel prices (refer Fuel Cost slide).

3. 1QFY23 vs 1QFY22: Higher expenses driven by higher R&M activities.

4. 1QFY23 vs 4QFY22: Lower non-generation cost as business activities start to accelerate.

Higher Y-o-Y fuel costs mainly due to higher coal and gas prices

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

Fuel Type	1QFY23	1QFY22	Variance RM mil	Variance %
Coal	5,589.3	5,038.4	551.0	10.9
Gas	2,940.7	2,601.4	339.3	13.0
Distillate	37.0	209.7	(172.8)	(82.4)
Oil	1.6	66.4	(64.8)	>100.0
Total	**8,568.6**	**7,915.9**	**652.7**	**7.6**

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

Table C – Fuel Costs Related Data

Fuel statistics	1QFY23	1QFY22
Average Coal Price Delivered (USD/MT)(CIF)	177.5	165.5
Average Coal Price Delivered (RM/MT)(CIF)	779.4	696.3
Coal Consumption (mil MT)	7.47	7.42
Gas Reference Market Price (RM/mmbtu)	Tier 1 : 30.0	Tier 1 : 30.0
	Tier 2 : 62.1	Tier 2 : 36.9
Daily Average Piped Gas Volume (mmscfd)	907	912
Generation Cost per Unit (sen/kWh)	27.2	24.8

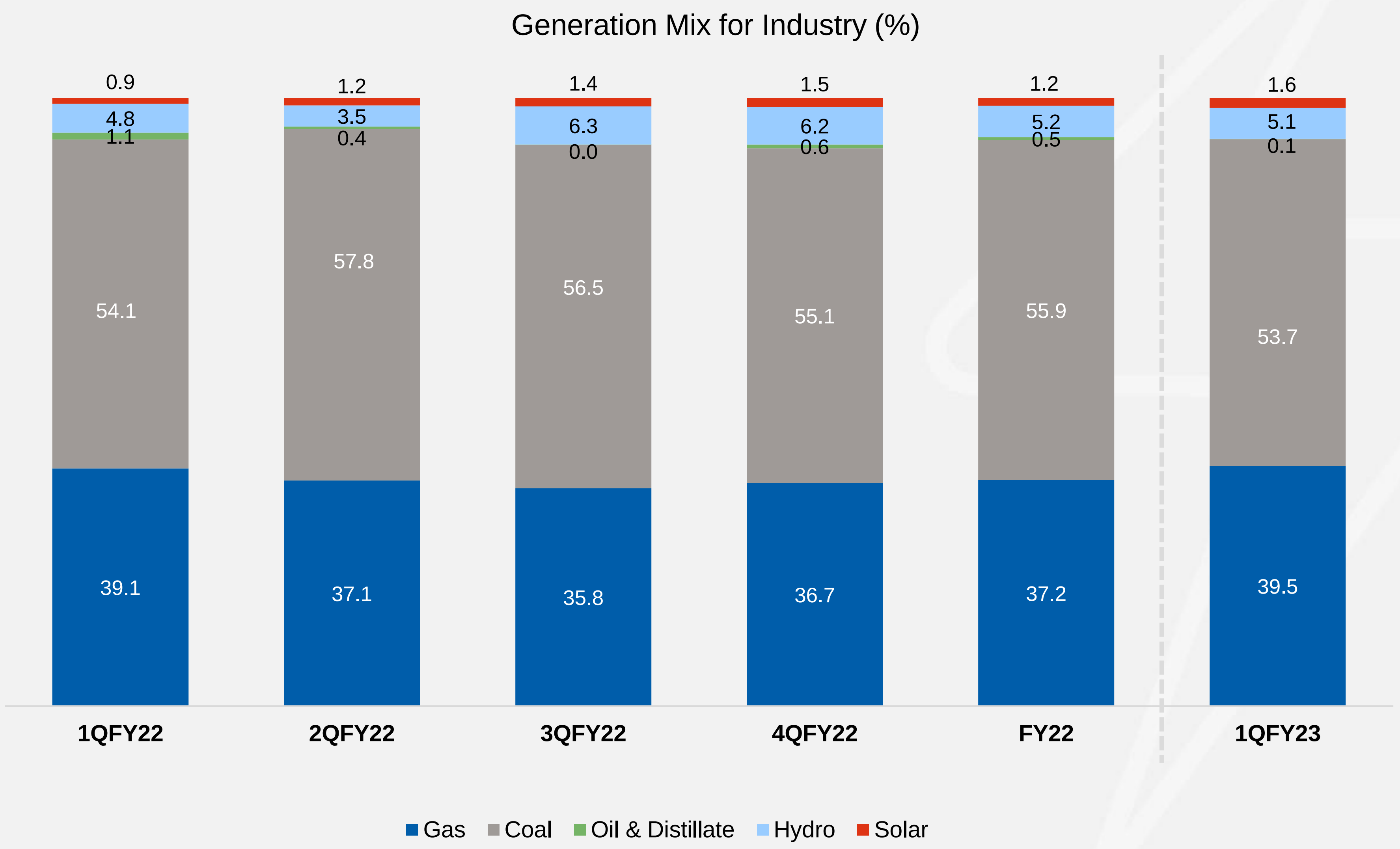
Table B – TNB & IPP Units Generated for Peninsular (GWh)

Fuel Type	1QFY23 GWh	1QFY23 Gen. Mix	1QFY22 GWh	1QFY22 Gen. Mix	Variance GWh	Variance %
Coal	16,914.5	53.7%	17,232.1	54.1%	(317.6)	(1.8)
Gas & LNG	12,441.3	39.5%	12,452.3	39.1%	(11.0)	(0.1)
Distillate	31.8	0.1%	339.2	1.1%	(307.4)	(90.6)
Oil	-	0.0%	-	0.0%	-	-
Hydro	1,591.4	5.1%	1,543.4	4.8%	48.0	3.1
Solar	504.7	1.6%	302.0	0.9%	202.7	67.1
Total	**31,483.7**	**100.0%**	**31,869.0**	**100.0%**	**(385.3)**	**(1.2)**

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

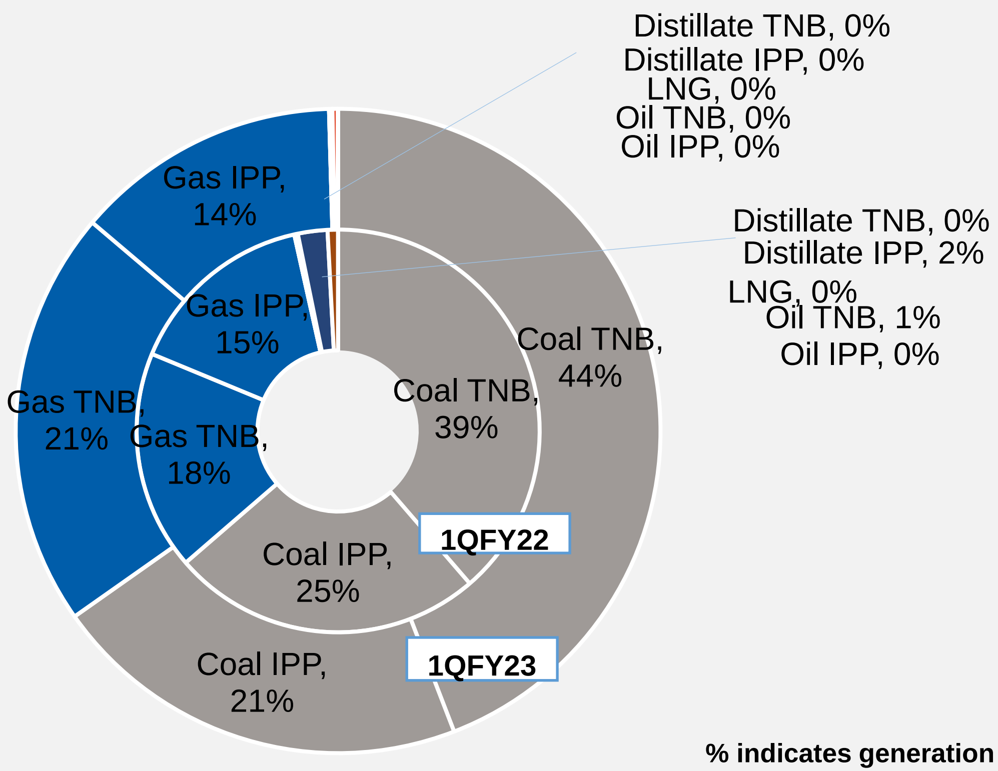
	1QFY23	1QFY22	Variance USD	Variance %
FOB	167.1	152.3	14.8	0.1
Freight	10.0	12.6	(2.6)	(20.6)
Others	0.4	0.6	(0.2)	(33.3)
CIF	**177.5**	**165.5**	**12.0**	**6.8**

Lower generation from coal in 1QFY23

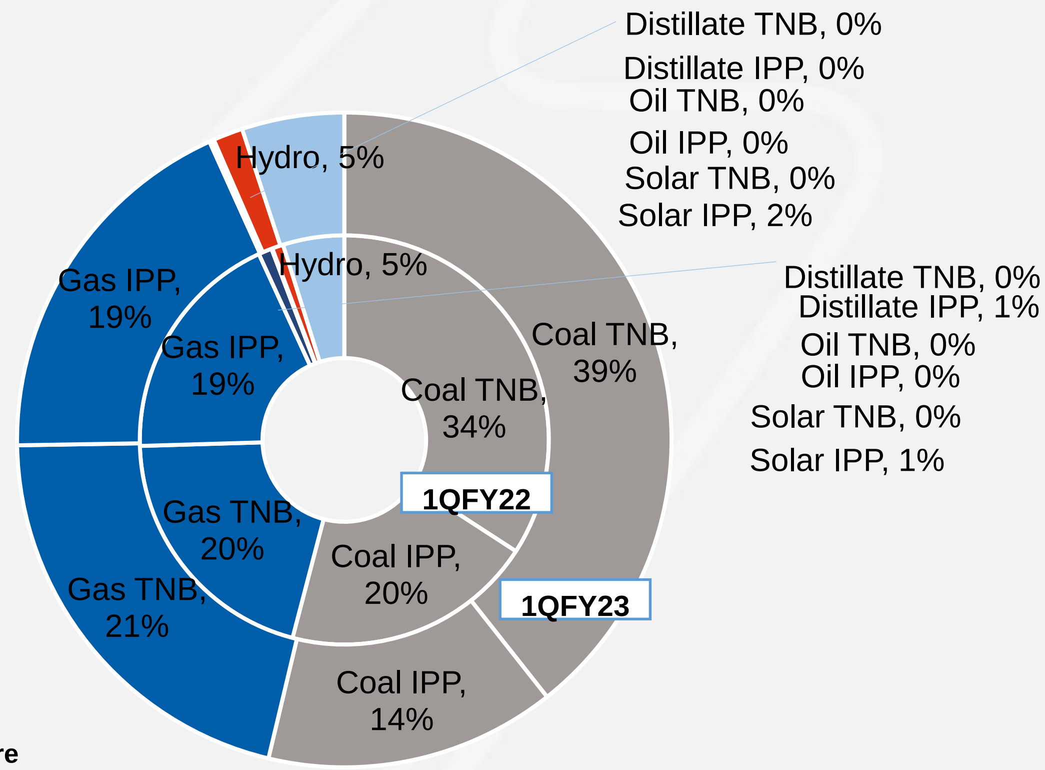


Fuel Costs & Units Generated (TNB & IPPs – Peninsular)

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

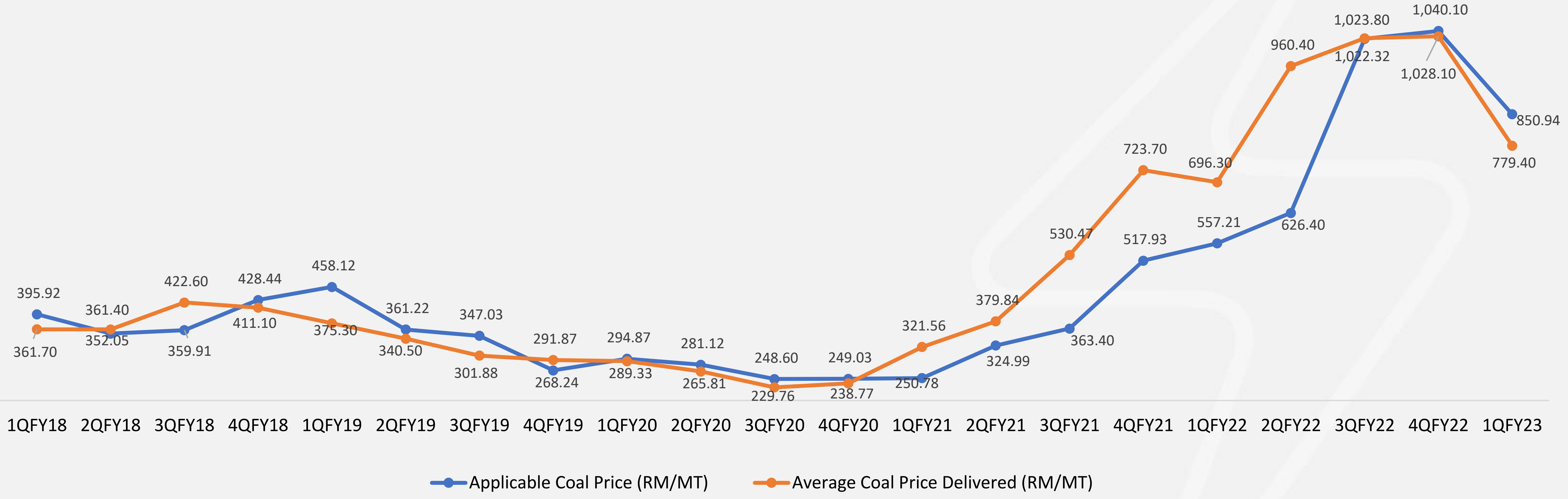
	1QFY22 (RM mil)	2QFY22 (RM mil)	3QFY22 (RM mil)	4QFY22 (RM mil)	1QFY23 (RM mil)
Reported Total Cost of Generation (with MFRS16)	8,367.1	11,634.6	11,029.5	12,052.8	9,186.9
Adjustment not related to IBR	909.5	948.3	840.2	*307.2	752.4
TNB Capacity and VOR: SLA & SPV	1,816.1	1,621.5	2,191.0	1,744.5	1,320.7
Total Generation Costs (Related to IBR)	**11,092.7**	**14,204.4**	**14,060.7**	**14,104.5**	**11,260.0**

	1QFY22 (RM mil)	2QFY22 (RM mil)	3QFY22 (RM mil)	4QFY22 (RM mil)	1QFY23 (RM mil)
Single Buyer Actual Generation Costs: **(A)**	11,092.7	14,204.4	14,060.7	14,104.5	11,260.0
Actual Sales (GWh)	28,959.3	30,159.7	30,347.5	29,415.1	29,113.2
Single Buyer Tariff (RM/kWh)	0.2620	0.2620	0.2620	0.2620	0.2620
Actual Gen Cost Recovered (RM mil) **(B)**	7,587.3	7,901.8	7,951.0	7,706.8	7,627.7
ICPT Surcharge / (Rebate) (C) (C = A – B)	**3,505.4**	**6,302.6**	**6,109.6**	**6,397.7**	**3,632.3**

**Reclass of SESB Fuel Subsidy from cost to revenue in 4QFY22*

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

Coal price trending



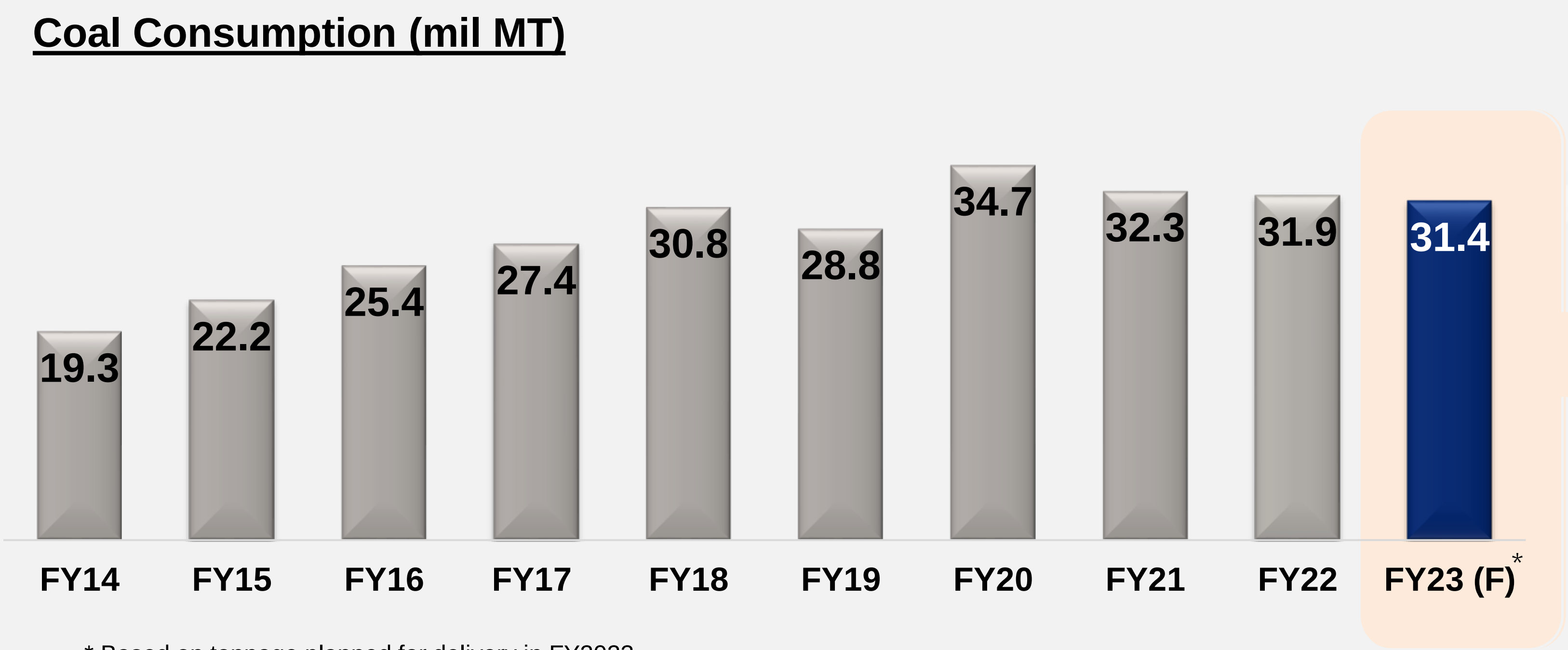
Coal Price & Applicable Coal Price (ACP) comparison

	1QFY22	2QFY22	3QFY22	4QFY22	1QFY23
Average Coal Price Delivered (RM/mmbtu) *	31.88	46.76	48.88	44.96	35.85
ACP (RM/mmbtu)	25.53	28.70	46.84	47.65	38.77

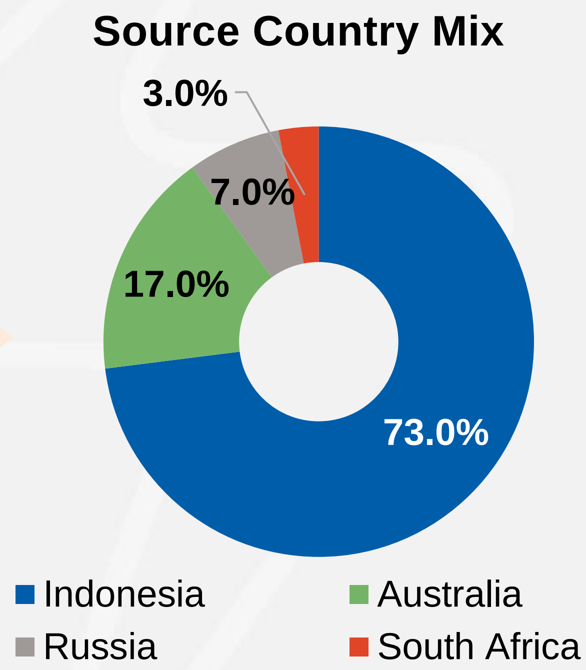
* Based on internal conversion

- Fuel Price Adjustments (FPA) is the difference between the Applicable Coal Price (ACP) used to bill the generators and the actual coal price paid to supplier. The difference is caused by higher or lower coal price or due to currency exchange.
- In 1QFY23, the base ACP (RM38.77/mmbtu) used for billing the generators is higher than the coal price paid to supplier (RM35.71/mmbtu).

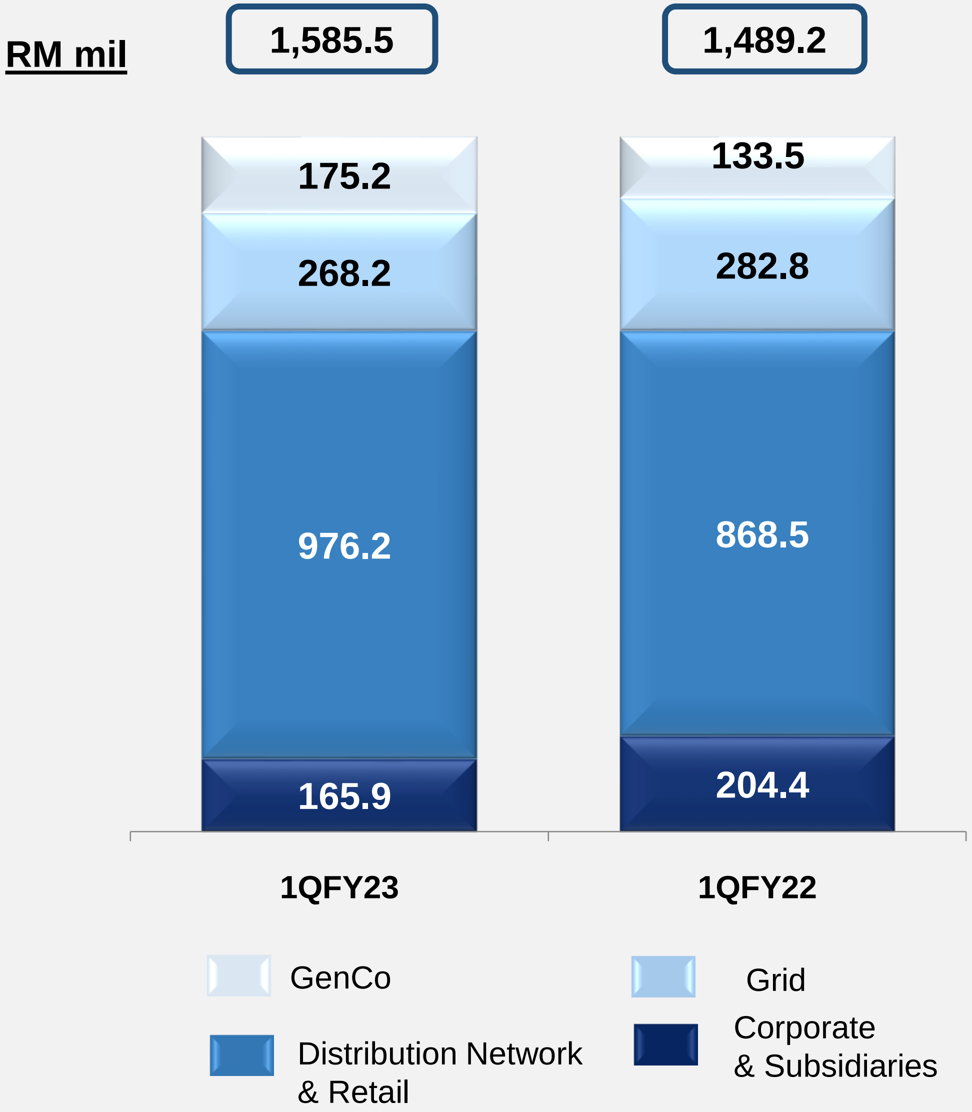
Industry coal requirement forecast for FY2023



* Based on tonnage planned for delivery in FY2023



Group CAPEX



Regulated CAPEX and Regulated Asset Base (RAB)

FY	RP3 REGULATED ENTITIES CAPEX		
	IBR Approved (RM mil)	Actual YTD (RM mil)	Utilisation (%)
2023	6,973.1	1,216.5	17.4%

Total RAB (RM mil)	
Actual As at 31 Mar 2023	**Approved FY2023**
61,447.5	**64,768.7**

Regulatory net returns: RM1,234.5 mil

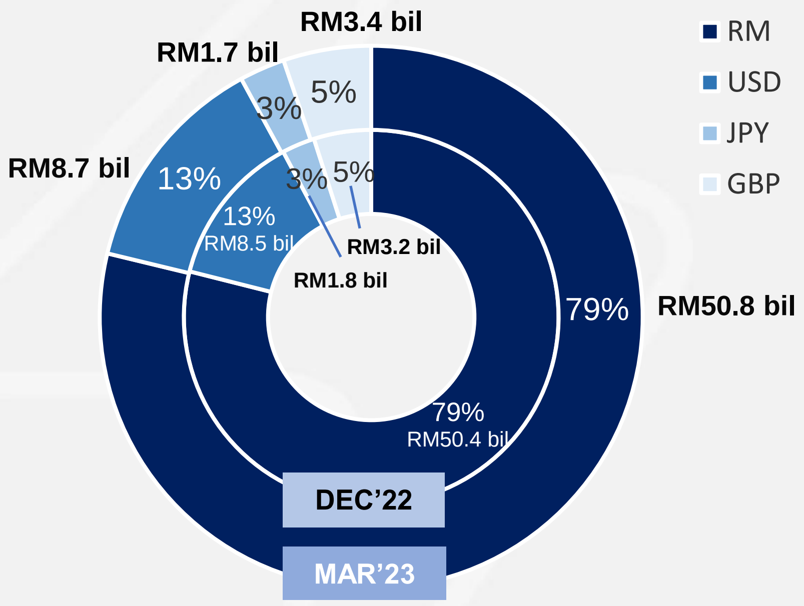
Note: Numbers manually computed will not match due to decimal variance

Gearing stood at 51.7% in 1QFY23

Statistics	31 Mar 2023	31 Dec 2022
Total Debt (RM bil)	64.6	63.9
Net Debt (RM bil)*	49.8	50.8
Gearing (%)	51.7	51.2
Net Gearing (%)	39.9	40.7
Fixed : Floating		
Underlying	95:5	95:5
Final Exposure	99:1	99:1
Effective Average Cost of Borrowing (based on exposure) **	4.69	4.63

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

Loan Breakdown



Investment Financing Principle:
Currency to match revenue streams

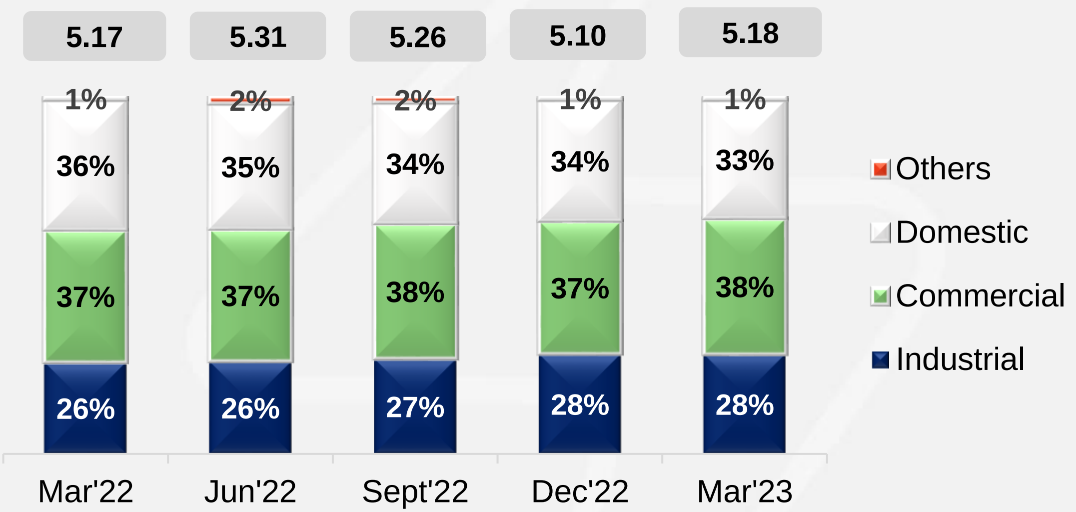
Closing FOREX	31 Mar 2023	31 Dec 2022
USD/RM	4.408	4.412
100YEN/RM	3.313	3.326
GBP/RM	5.462	5.312

Note:
Debt consists of Principal + Accrued Interest

Improvement in trade debtors ageing for 2-5 months bucket

Trade Debtors Ageing (RM bil)

Trade Receivables By Sectors (RM bil)



Ongoing initiatives to improve collection

- Promotional activities to increase enrolment of Autopay, Direct Debit and e-Bulk Scheme to targeted domestic and non-domestic customers.
- Enrich customer experience, especially via digital payment channels such as myTNB, Online Banking and e-Wallet.
- Provide personalised engagement with large power consumers such as SMEs and Government and Large Business (GLB).
- Perform close monitoring on commercial and industrial customers with debt exposure, especially those under vulnerable sub-sectors.

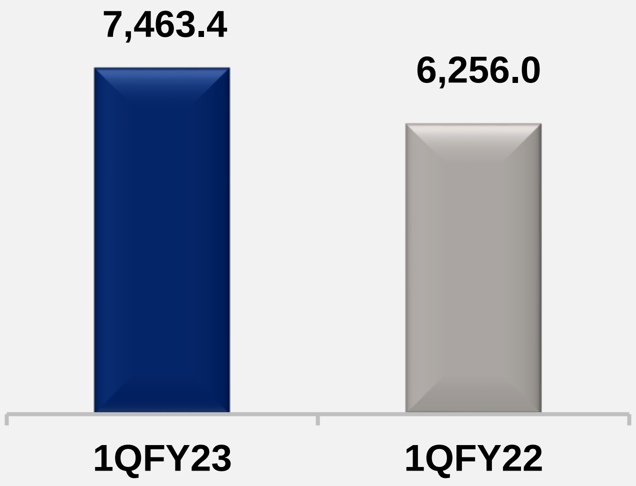
Cash flow

- We continuously monitor our cash flow position on a daily basis and remain prudent on our working capital management.

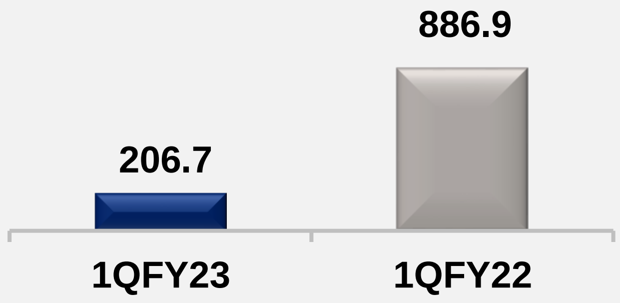
Domestic generation business performance

RM mil

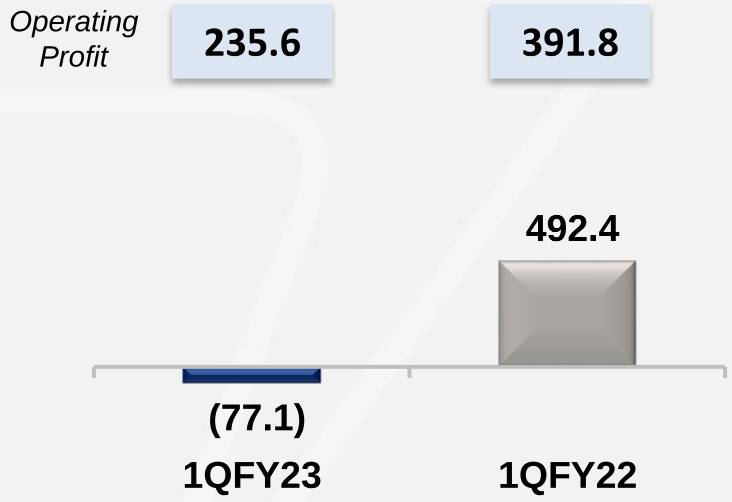
REVENUE



EBIT



PROFIT AFTER TAX

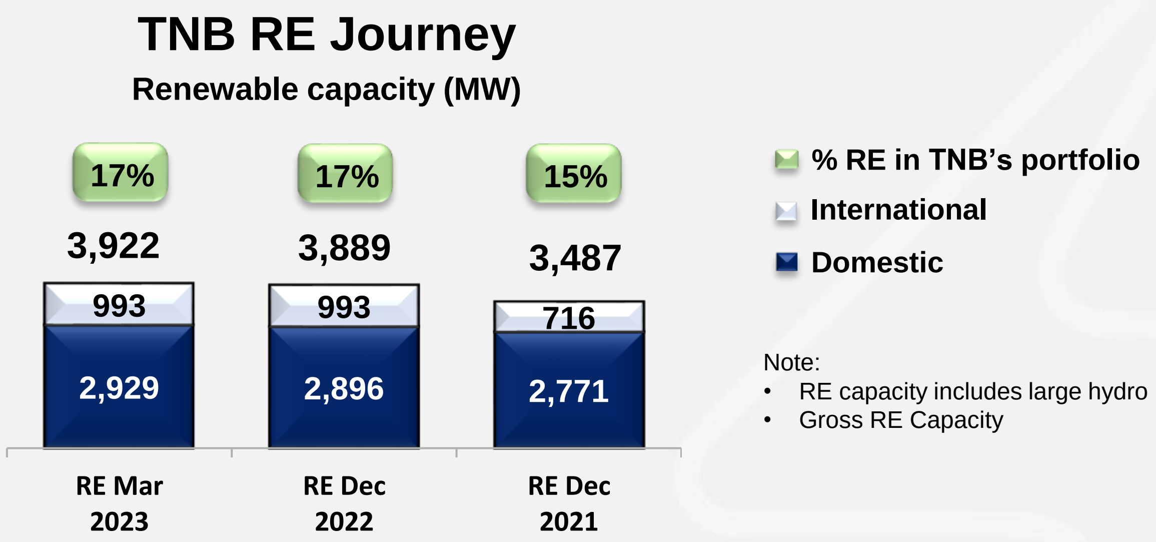


Higher revenue mainly due to higher energy payment resulted from higher fuel prices

Lower EBIT and PAT due to:
- CRF step down of certain power plants in 3QFY22; and
- Impact of high coal price volatility.

Note: Includes generation related subsidiaries

Our RE journey is progressing well



Note:
- RE capacity includes large hydro
- Gross RE Capacity

Recent RE Progress

1) Domestic renewables

- We have signed a 30-year power purchase agreement for the 300MW Nenggiri hydro plant which is expected to commence on 1 June 2027. The construction works have started since 1 March 2022.
- **GSPARX has successfully secured a total capacity of 271.9MW as of Mar 2023. (Dec 2022: secured 240.9MW, Dec 2021: secured 116.3MW).**
- Successfully commissioned a biogass of 1.6MW in Kempas, Melaka.
- Successfully commissioned a mini hydro of 4.0MW in Sungai Tersat, Kuala Berang in December 2021.

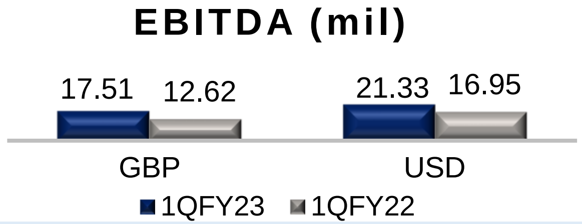
2) UK / Europe renewables

- In December 2022, we have successfully acquired 102MW of solar farms in the UK & potential development of 65MW for battery storage. The solar farms are expected to achieve Commercial Operation Date (COD) by Q1 2024.
- In June 2022, Bajoli Holi hydro power plant of 180MW in GMR was successfully commissioned.
- In April 2022, we successfully acquired 97.3MW Onshore Wind Portfolio in the UK.
- We have successfully acquired a 49% stake in Blyth Offshore Demonstrator Ltd (BODL), an offshore UK wind farm company in October 2021, with existing floating offshore wind capacity of 41.5MW and further development rights for similar type of RE of up to 58.4MW.
- In May 2021, we acquired a 500kW FiT turbine in the UK.
- The formation and establishment of Vantage RE Ltd or RACo has been completed on 1 July 2021.

INTERNATIONAL BUSINESS - CORE/RENEWABLE ENERGY (RE) ASSETS
Performance as at Mar’23

Vantage RE

EM: 69%



- Higher EBITDA YoY due to additional contribution from wind portfolio (97.3MW) and higher locked-in PPA prices in Q1 2023.
- The total cash distribution declared to date amounting to GBP160.2 mil.

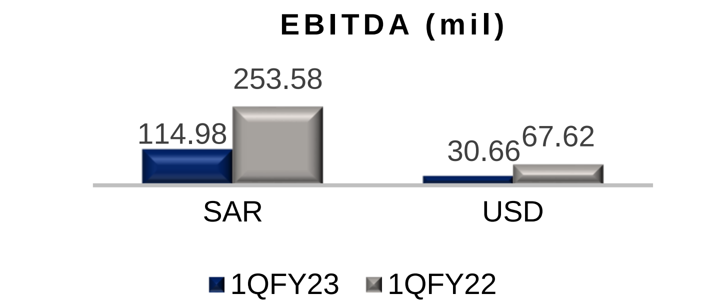
Outlook for Vantage RE:

- In FY22, Vantage had successfully completed the acquisition of a 97.3MW operating onshore wind portfolio and its first greenfield acquisition, a 102MW Ready-to-Build (RTB) solar portfolio with an option to develop 65MW Battery Energy Storage System (BESS) in the UK. The expected Commercial Operation Date (COD) of the solar portfolio is Q2 2024.
- Vantage is focused on expanding its current pipeline build to include more greenfield assets at various stages and technologies within its European target markets, as it pursues its growth strategy.
- Vantage Solar and CEI UK have also locked-in Renewable Energy Guarantees of Origin (REGO) prices with expected upside over the next 5 years.
- The UK Government has introduced the Electricity Generator Levy (EGL) beginning 1st January 2023 until 31st March 2028. There will be a new 45% tax on receipts made by low carbon generators above a benchmark power price of £75/MWh (referred to as Exceptional Generation Receipts), with an allowance of GBP10 mil per annum. The supplementary EGL technical note benchmark price will be indexed with CPI from 2025 onwards, and revenue relating to sale of Renewables Obligation Certificates (ROCs), REGOs, and Feed-in-Tariff payments are excluded.
- Inflation decreased to 10.1% in March 2023 from 10.5% in December 2022. The Bank of England (BoE) expects inflation to fall quickly to around 5.0% by the end of 2023 and to 2.0% by late 2024. No adverse impact is anticipated as Vantage’s subsidy revenue is inflation linked and likely to offset any increase in operating expenses.

Notes :
EM : YTD EBITDA Margin

INTERNATIONAL BUSINESS - CORE/RENEWABLE ENERGY (RE) ASSETS
Performance as at Mar’23

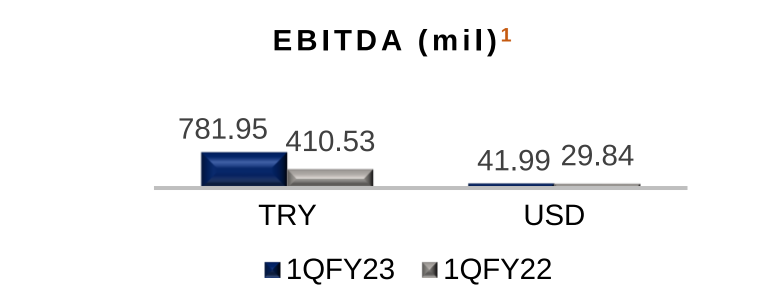
Shuaibah
EM: 63%



- Lower EBITDA YoY due to higher operating cost as a result of electricity import cost from the total plant outage at SWEC (Water and Power) in January and February 2023.

Outlook for Shuaibah:
- Shuaibah is to remain 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.

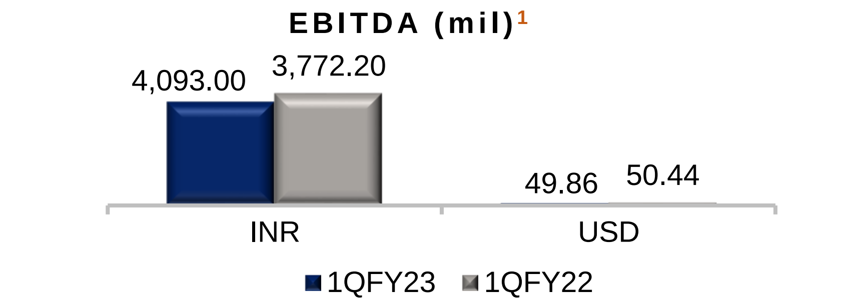
GAMA Enerji A.S. (GEAS)
EM: 11%



- Higher EBITDA YoY is mainly contributed by higher captured spark spread in ICAN compared to previous year (USD22.87/MWh vs USD 16.28/MWh).

Outlook for GEAS:
- Turkey is experiencing hyperinflationary economy as Turkey's inflation is at 50.5% as of March 2023. However, GEAS remains operationally profitable (EBITDA), benefiting from the lucrative electricity prices which is underpinned by high gas price and seasonal hydro generation. Furthermore, some portions of GEAS' revenue and cost are indexed to USD, and this cushion the financial impact of the hyperinflation and provides steady cash flows to GEAS.
- GEAS had successfully restructured debt within its portfolio which provides sustainability to weather through current volatility in the market. In near term, GEAS is expected to secure payment for 2023 and 2024 principal and interest payment from DIWACO's dividends and ICAN's cash flows.

GMR Energy Limited (GEL)
EM: 32%



- Higher EBITDA (INR) YoY due to operationalisation of Bajoli Holi and improvement in generation mainly from Warora. However, slightly lower performance in USD due to depreciating INR currency against USD on a YoY basis.

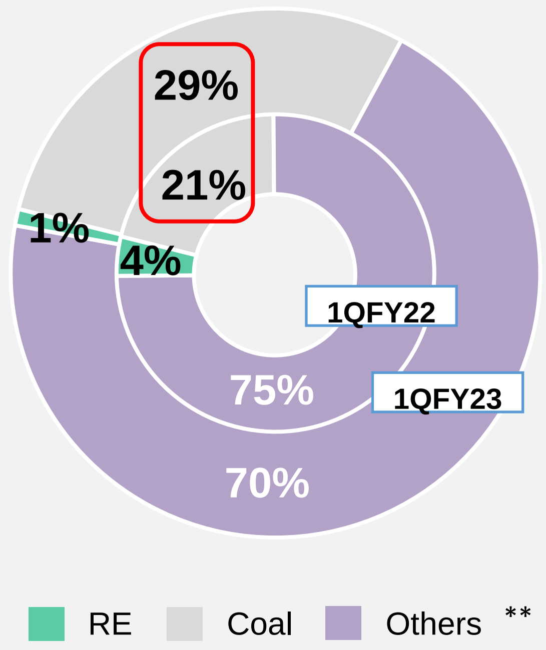
Outlook for GEL:
- Power demand is expected to grow May 2023 onwards due to improvement of economic activities and rise in temperature in the summer.
- Coal India Limited (CIL) being the only domestic coal supplier to our plants had demonstrated the ability to meet its annual coal targets. There is a minimal risk at Warora in receiving coal by rail due to insufficient coal rakes as the plant is located farther away to the coal source. Nonetheless, this risk has not caused any coal constraint issue to Warora so far.
- TNB is supportive of GEL’s current initiatives to preserve value and sustainability of the portfolio, while in parallel pursuing exit strategies to enable TNB to re-focus its resources and capital into Renewable Energy (RE) in key markets, in line with TNB’s approved “Reimagining TNB Strategy”.

Notes :
EM : YTD EBITDA Margin
[1]Reported 3 months lagging
[2]EPIAS is the market operator responsible for operating day-ahead, intra-day and balancing markets in the country

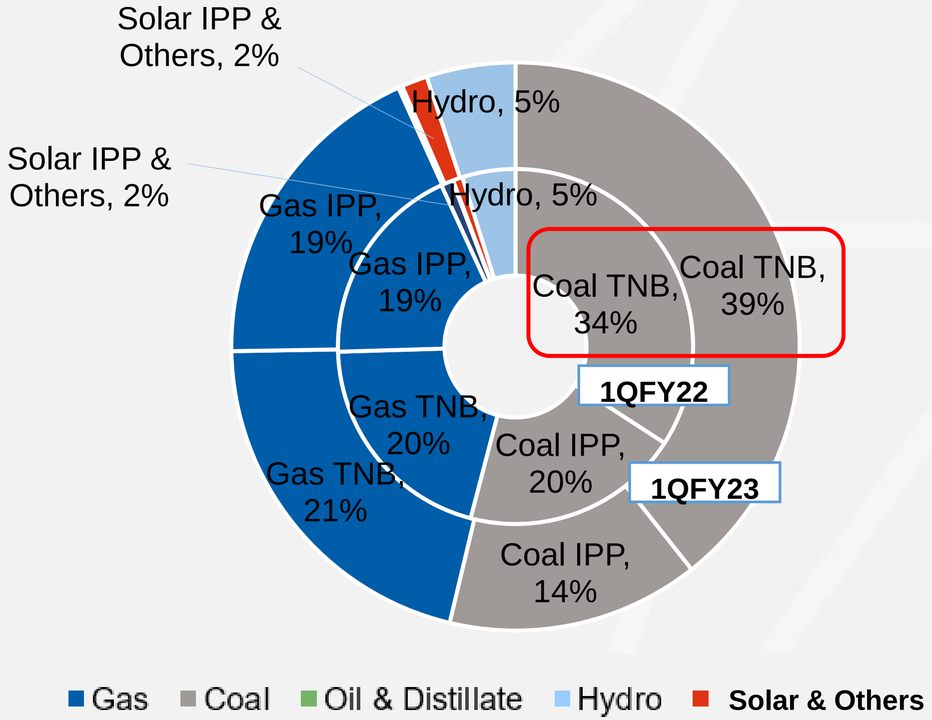
Higher TNB coal contribution for 1QFY23 due to higher demand:

- Actual Group revenue: 29% (1QFY22: 21%)
- Units generated: 39% (1QFY22: 34%); lower IPP dispatch due to unavailability

Actual Group Revenue*



Units Generated



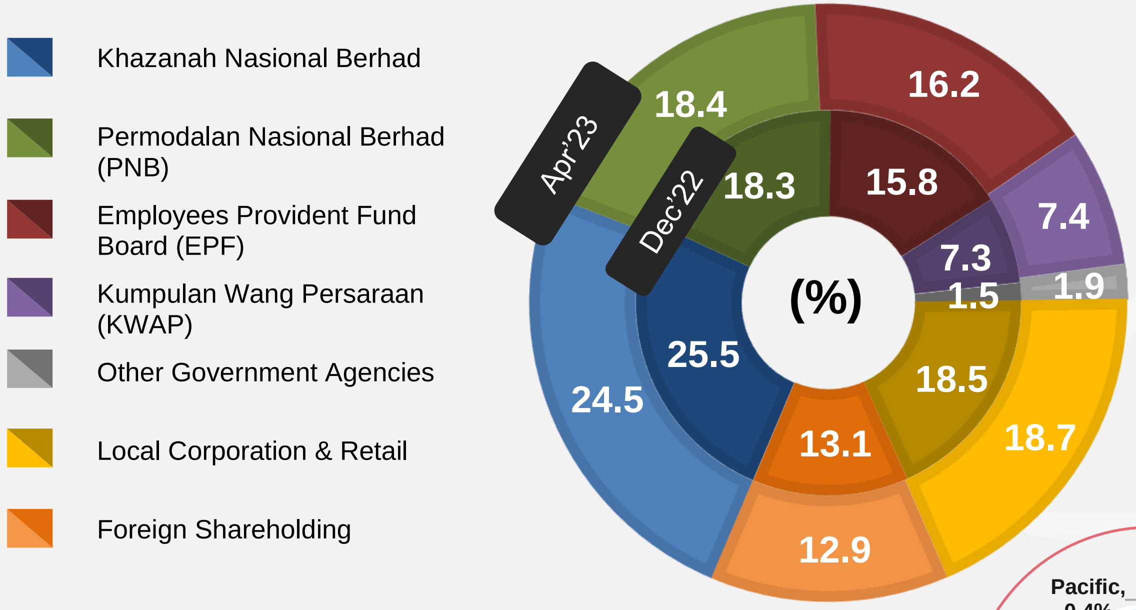
* Total revenue includes ICPT

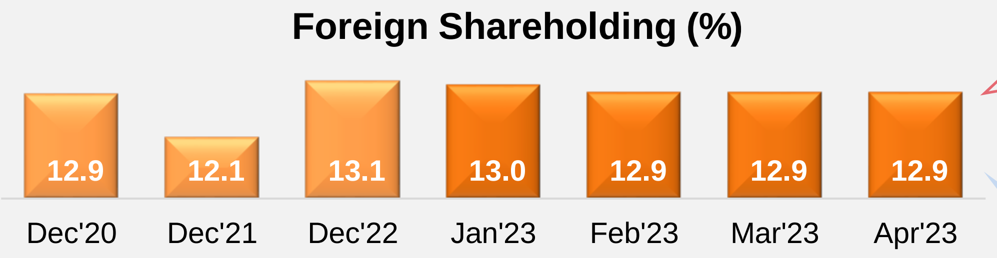
** Others include revenue from regulated business, subsidiaries and generation from gas

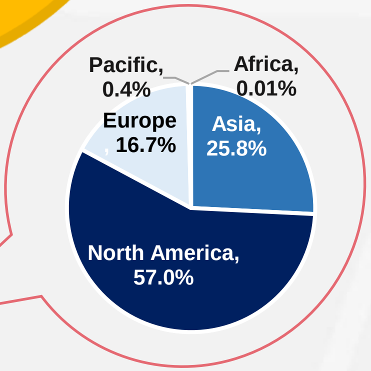
Long-term aspiration: aims to be coal-free by 2050

- No new coal plant investment in the pipeline
- Reduction of coal capacity by 50% by 2035 & coal-free by 2050

Shareholdings







Institutional: 12.7%
Individual: 0.2%

Source: Share Registrar, Bloomberg and IR Internal Analysis

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Thank you

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