Presentation to Analysts 2QFY2022

Unaudited Consolidated Results for the

2nd Quarter FY2022 Ended 30 June 2022

1 September 2022

Tenaga Nasional Berhad 199001009294 (200866-W)

Key Highlights: Delivering on our performance and value to our shareholders, while we ensure sustainable growth

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Better. Brighter.

1 1HFY22 Performance

a) **Resilient** 1HFY22 **financial performance**

b) Maintained **world class operational network performance** despite challenging operating environment

2 Delivering value to our shareholders

Dividend payout reflects prudent capital management

3 Sustainable Growth

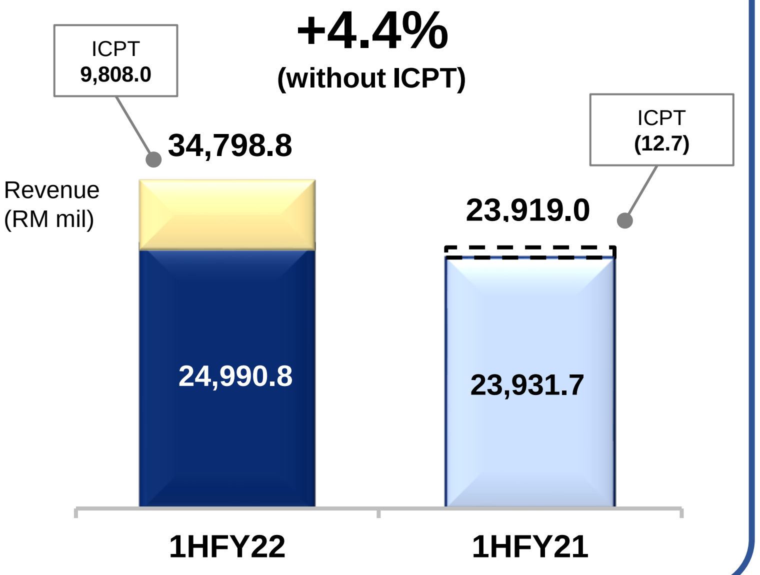
a) **Proactive measures to address ICPT**

b) **Fast-tracked** our **energy transition** program

1a Resilient 1HFY22 financial performance on the back of higher electricity demand of 5.0% year-on-year for the Group in line with continued economic growth

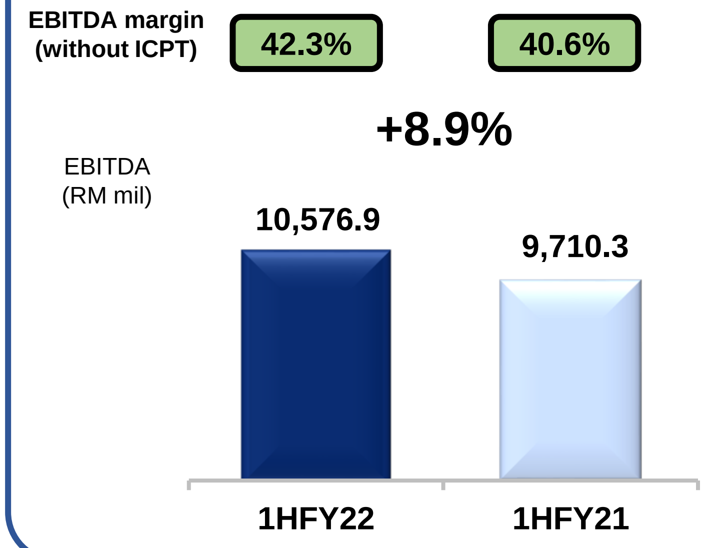
REVENUE

- Increase in TNB sales of electricity, driven by higher consumption in all sectors, consistent with the overall improvement of Malaysia's GDP of 6.9% year-on-year.
- Peninsula Malaysia electricity demand grew by 5.7% year-on-year.



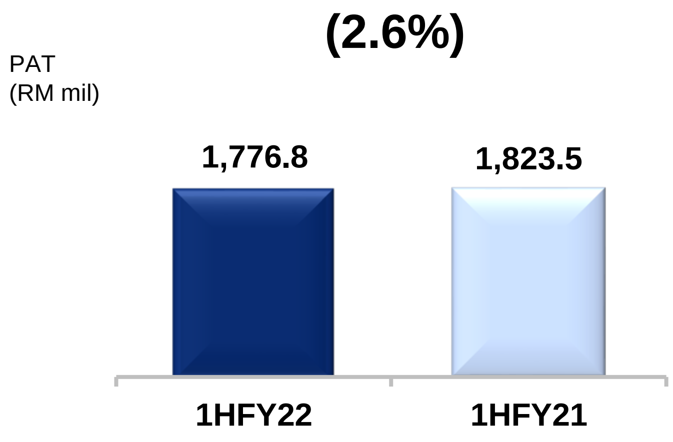
EBITDA

- Includes higher Group electricity revenue and lower Allowance for Doubtful Debts (ADD 1HFY22: RM75.4 mil, 1HFY21: RM464.3 mil)
- **EBITDA margin (without ICPT) has improved to 42.3% from 40.6% as compared to the same period last year reflecting improvement in our performance.**



PROFIT AFTER TAX

- Includes MFRS16 impact from the commissioning of Edra Melaka power plant.
- PAT without MFRS16:
  - ❑ 1HFY22: RM2,250.9 mil
  - ❑ 1HFY21: RM2,109.9 mil

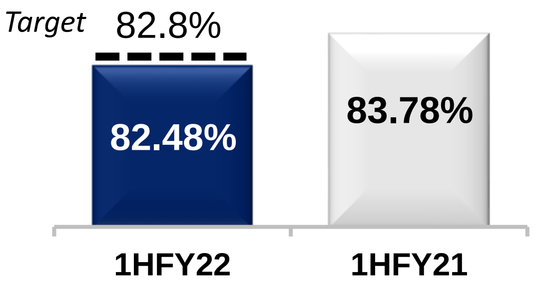


1b

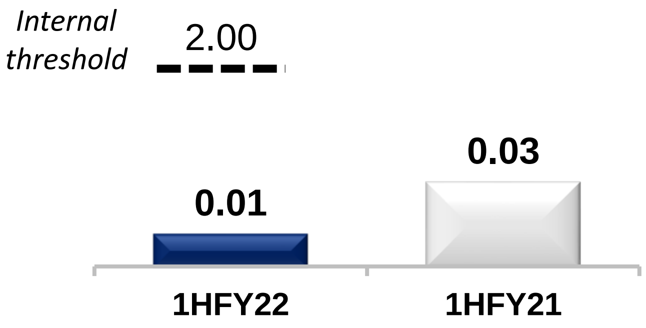
Supporting our financial performance is solid technical operations, maintaining world-class standards despite the challenging operating environment

Equivalent Plant Availability Factor, EAF
(Generation)
%

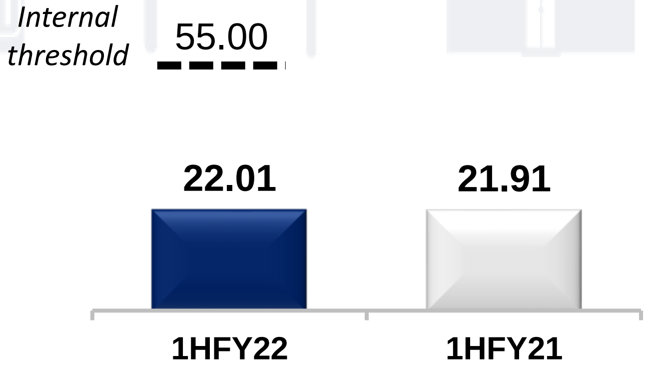
- **2Q performance has improved to 82.48% from 80.54% (1Q)**



System Minutes
(Transmission)
Minutes



SAIDI
(Distribution Network)
Minutes



*EAF includes planned and unplanned outages

2 Dividends declared reflect prudent capital management while payouts remain robust relative to KLCI performance

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Dividend Policy
Dividend payout ratio of 30% to 60% based on the adjusted PATAMI

	1HFY22	1HFY21
Dividend Payout (%) (based on Adjusted PATAMI)	47.3	53.1
Interim Dividend Per Share (sen)	20.0	22.0
Dividend Payout (RM bil)	1.15	1.26
Dividend yield (%)	2.5	2.2

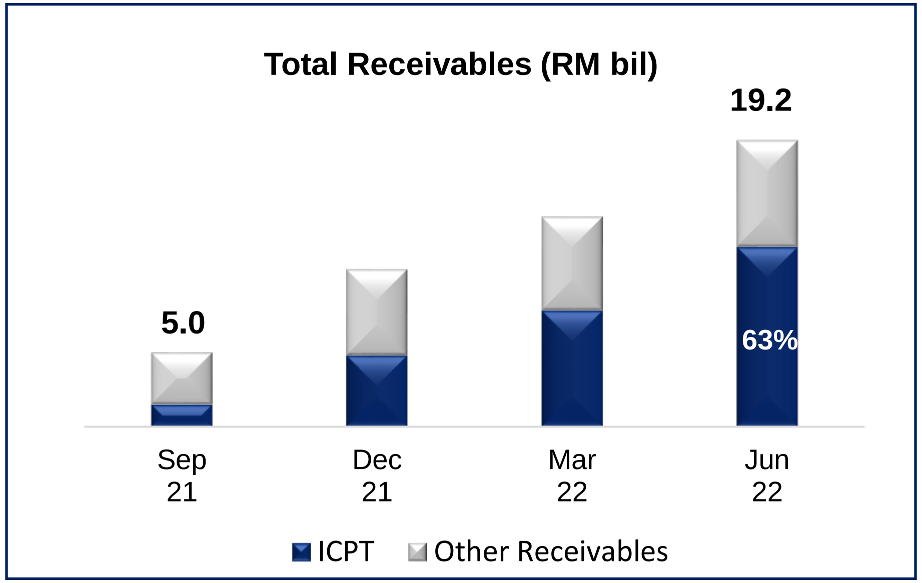
**as at June 2021 & June 2022*

Dividends declared have been robust relative to KLCI performance

	Interim	Total dividend for the year		
	2022	2021	2020	2019
KLCI Performance (%)	↓ 7.9	↓ 3.7	↑ 2.4	↓ 6.0
Dividend declared (sen/share)	20.0	40.0	40.0	50.0

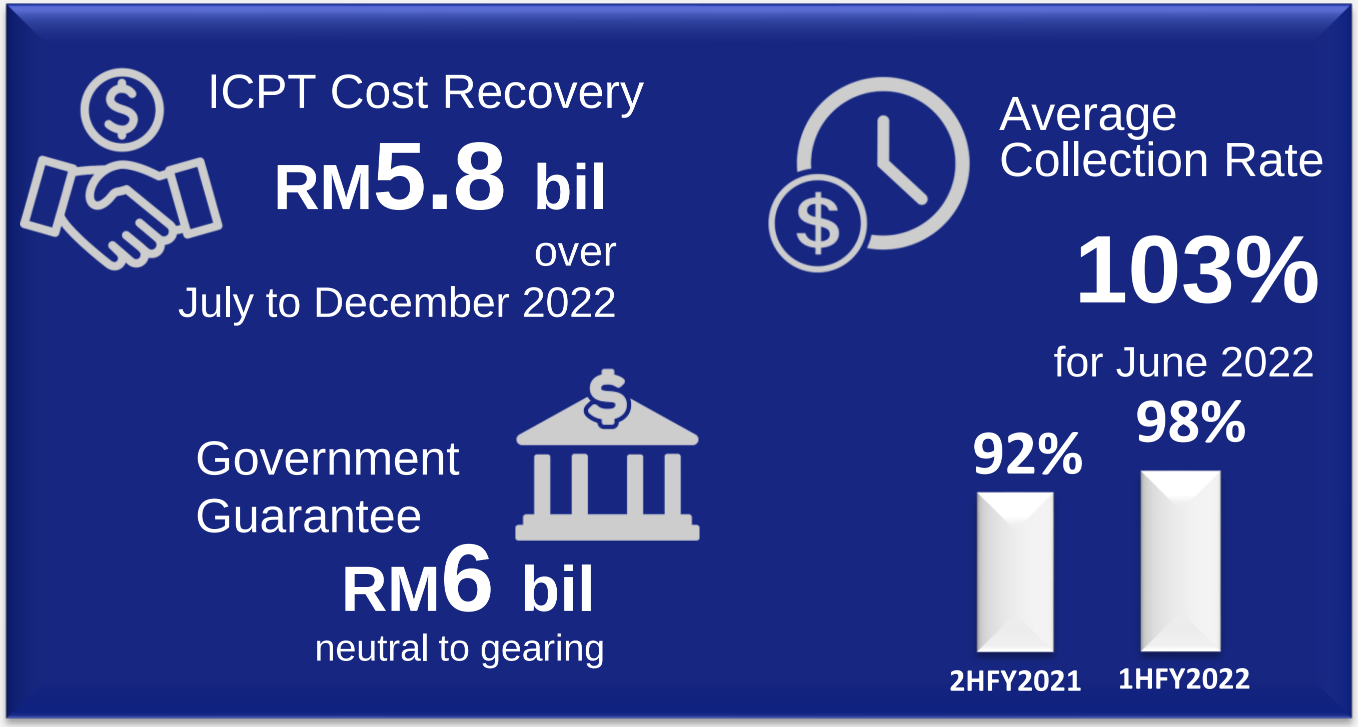
Source: Bloomberg, Internal analysis

3a Our proactive measures have achieved an important milestone in managing the high fuel prices and our capital requirements. Our credit ratings remain stable.



IBR allows TNB to recover the cost of working capital through the ICPT Remuneration Rate – *Regulatory Implementation Guidelines, section 7.8*

Prudent & Proactive Working Capital Management



Our credit ratings remain stable

"The stable outlook on TNB reflects our expectation that the company will maintain its adjusted ratio of funds from operations (FFO) FFO-to-debt ratio at above 15% over the next 12-18 months. We estimate the Malaysia based utility company's FFO-to-debt will remain at 16% - 18% during the new regulatory period (from February 2022 until December 2024)."

- **S&P Global Ratings, 27 July 2022**

3b TNB's fast-track energy transition plan ensures sustainable business growth while meeting our ESG commitments

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GenCo

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

Fast track decarbonisation

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

Explore opportunities in ASEAN

- Hydro
- Gas

~800 MW
Target share of capacity by 2050

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

NED

~USD7 bil equity investment by 2050

Large-scale Solar PV
Onshore wind
Offshore wind

Legends:
- Existing Investments
- Main target markets

FOCUS MARKETS

CURRENT	EU
UK, MY	ES, IE, FR
SEA	**APAC**
TH, PH, VN	AU, TW, KR

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

Grid

Regulated asset base (RAB) for Grid + DN to grow to ~RM100 bil by 2050

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

Regional Interconnection

To strengthen security of supply and open investment opportunities

Potential Earnings by 2050: ~RM7 bil

EV

We will invest RM90 mil to support BEV ecosystem over the span of 3 years with the following key strategic moves:

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

2030 EV Market Potential

18,000 charging points	**2.318 TWh** annual electricity sales
500,000 BEV on the road	**RM 1,258 mil** annual electricity revenue
4,432 k tons CO_2 emission reduction	

We start with GenCo as the biggest lever with major shifts to RE and new green technologies towards the future…

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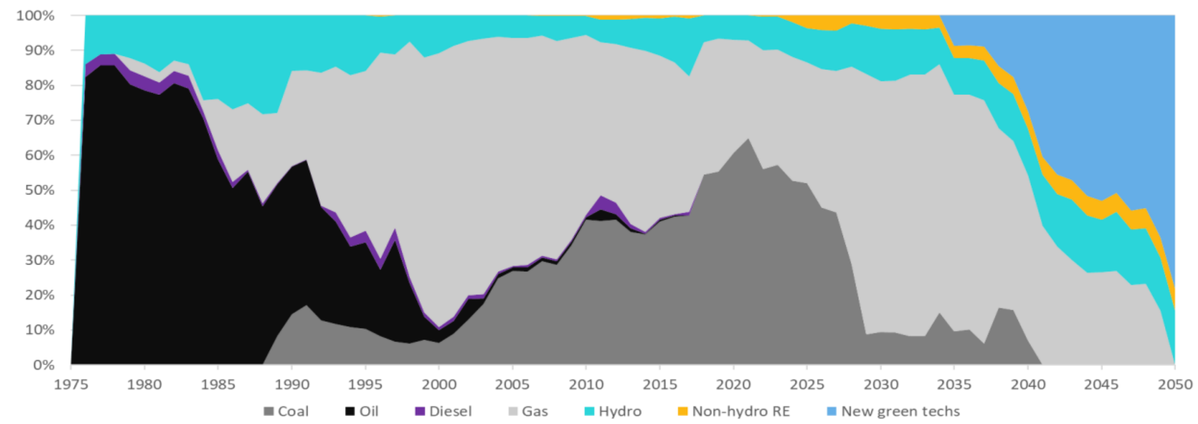
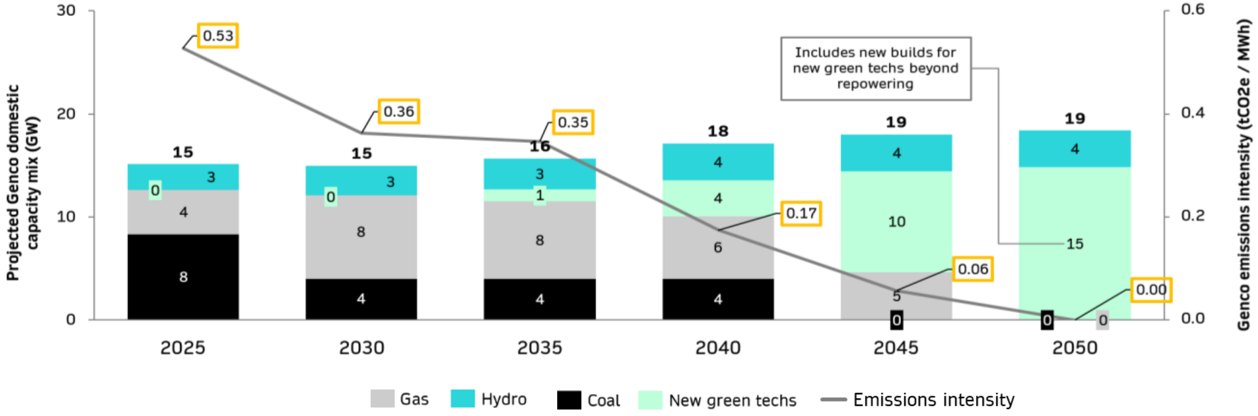
TNB's decarbonisation roadmap to achieve net zero emission by 2050 and be coal-free by early 2040s, ahead of initial milestone

GenCo aims to capture estimated RM40 bil of domestic market by 2050



GenCo moves will contribute to reaching our 2035 intensity target and net zero by 2050



1. Projected GenCo capacity mix with green accelerator scenario. Capacity mix does not account for TNB's equity share; 2. New builds may not be needed for gas if all repowering plans can be executed as planned; 3. New builds for new green techs may only be needed in the late 2040s if all repowering plans can be executed as planned; Source; Internal analysis

GenCo's next moves to fast track decarbonization

1 Early retirement of coal plants

Explore the viability of retiring Kapar Energy Ventures (KEV) to a year ahead of its PPA expiration, subject to agreement of existing shareholders & approvals from relevant authorities and regulators

2 Repowering plants with cleaner fuel and green tech

Following KEV early retirement, we will begin our repowering plan with KEV (1400MW) and Paka (1400MW). GenCo repowering strategy will include optionality. Paka is planned to be hydrogen-ready by 2029

3 Accelerate green tech adoption via strategic technology partnership

In addition to green tech, strategic partner can provide capital and new capabilities

Hydrogen | CCUS | Nuclear SMR

Through these deliberate steps to increase its enterprise value and sustainability position, we are also staying open to the possibility of an Initial Public Offering (IPO) of GenCo, should the opportunity come up

GenCo aims to explore hydro and gas opportunities in ASEAN

Gas
Vietnam, Thailand, Indonesia
Target: +4 gas projects

Hydro
Laos, Indonesia
Target: +7 new hydro projects
+10 hydro acquisitions

~800 MW — Target share of **capacity** of the new international plants by 2050

… pioneering in green hydrogen and Carbon Capture & Storage (CCS) with the signing of MoU with Petronas (19 August 2022)

Partnership with Petronas to enable TNB to repower Paka by co-firing Green Hydrogen

- **Collaborative/Joint feasibility study** on the application of CCS solutions at TNB power generation plants, including developing green hydrogen fuel for power generation.
- Initiative will begin with the re-powering of Paka using high-efficient combined cycle gas turbine (CCGT) with **hydrogen ready technology by 2029** towards cleaner energy production.
- **Paka power plant serves as a unique pioneering project** in deploying green technologies that may be utilised in future power plants.
- TNB is intensifying efforts to **co-create a green hydrogen ecosystem** to provide cleaner energy solutions for Malaysia and markets overseas.

TNB’s New Energy Division (NED) will continue to expand our renewable energy portfolio on both domestic and international grounds as we build capability and gain access to technology and market knowledge

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Asset development and business expansion

Geographical Expansion

FOCUS MARKETS

CURRENT
UK MY

SEA
TH PH VN

NEW FOCUS MARKETS

EU
ES IE FR

APAC
AU TW KR

Life Cycle

- Move upstream into asset development for IRR enhancement

Capital Strategy

- Recycle capital to optimise capital allocation, contributing to EBIT uplift
- Tapping global capital market for RE investments

Technology Focus

Large-scale Solar PV
Onshore wind
Offshore wind

CO2 avoidance of ~6.9 mil TCO_2 per annum by 2050

NED’s Projected Growth Of Installed RE Capacity[1]

2022	**0.7 GW**
2050	**14.3 GW**

Expect ~USD7 bil equity investment by 2050

Target Portfolio EIRR: ~7- 9%

1. Excluding hydro power

The Grid is a critical infrastructure to enable energy transition. TNB will continue to invest to strengthen the grid and network infrastructure in Peninsular Malaysia, balancing grid security, sustainability and affordability. For RP3, RM2.6 billion is allocated for Energy Transition.

Spurring growth of Variable Renewable Energy (VRE) and Distributed Energy Resources (DER) through improved grid flexibility & regional interconnection

- Target to achieve a score of **85% on the Smart Grid Index by 2025**
- **Analytics, automation and digitalization** to deliver operational efficiencies
- Potentially **45% of LSS** in national capacity mix by 2050

Propelling growth of transportation and industrial customers electrification via enhanced grid capacity & connectivity

- **50% growth in grid peak load** by 2050 compared to 2022 level

Enabling decarbonization   Decarbonizing grid

Reducing grid's own carbon footprint and preserving the forestry & natural environment

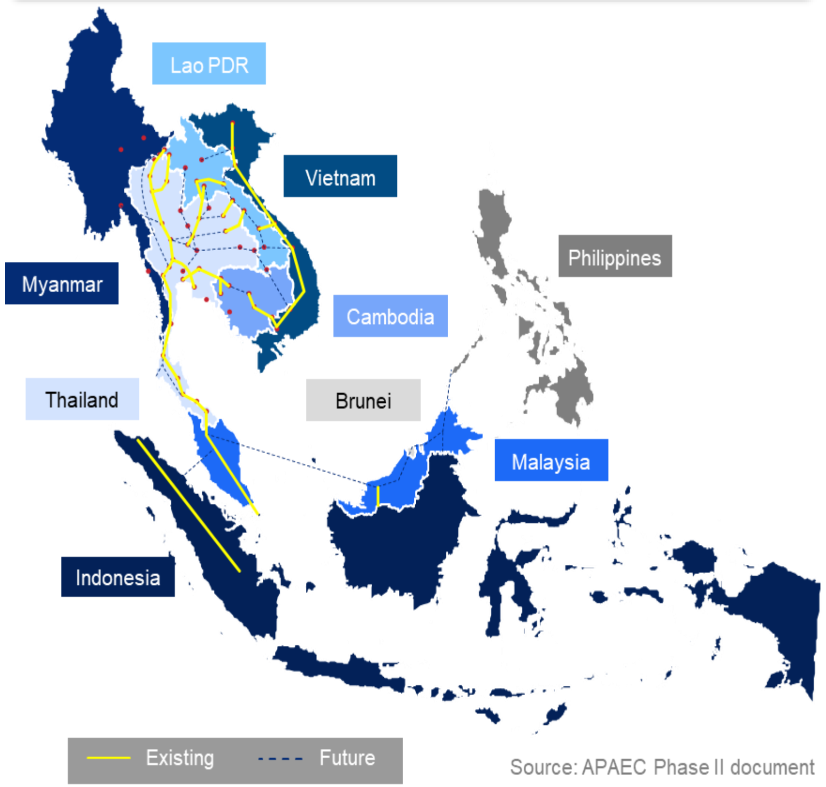
- **Continuously conserving & preserving forest** from grid development activities
- Adopt **green technologies** for grid asset

Regulated asset base (RAB) for Grid + DN to grow to ~RM100 bil by 2050

Potential Earnings by 2050: ~RM7 bil

Regional Interconnection

Facilitate decarbonisation, strengthen security of supply and open investment opportunities between ASEAN members



Source: APAEC Phase II document

TNB aims to accelerate the BEV adoption to capture RM1.3 billion market value by 2030 and welcomes collaboration with strategic partners to stimulate the growth of BEV ecosystem

TNB will invest RM90 mil to support BEV ecosystem over the span of 3 years with the following key strategic moves:

2025 EV Market Potential

3,300
charging points

33, 350
BEV on the road

69,000 tons
CO_2 emission reduction

0.15 TWh
annual electricity sales

RM 80 mil
annual electricity revenue

2030 EV Market Potential

18,000
charging points

500,000
BEV on the road

4,432 k tons
CO_2 emission reduction

2.318 TWh
annual electricity sales

RM 1,258 mil
annual electricity revenue

The Group foresees a reasonable performance for the year 2022 despite a challenging environment

ELECTRICITY DEMAND

Full year demand growth of 1.7% @ 115,835 GWh as per IBR determination

GROUP CAPEX FORECAST

Total Group CAPEX :

RM11.8 bil

- Regulated capex : **RM7.2 bil**
- Others* : **RM4.6 bil**

** Major projects, subsidiaries and corporate*

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

TNB's fast-track generation decarbonisation will see major shifts to RE and new green techs towards the future, meeting our ESG commitment while ensuring business growth

2Q FY2022

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

Appendix

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

RM mil		1HFY22	1HFY21	Variance RM mil	Variance %
Revenue	1	34,798.8	23,919.0	10,879.8	45.5
Operating expenses (without depreciation)	2	(24,571.4)	(13,945.1)	(10,626.3)	76.2
Net loss on impairment of financial instruments	3	(80.2)	(667.6)	587.4	(88.0)
Other operating income		429.7	404.0	25.7	6.4
EBITDA		**10,576.9**	**9,710.3**	**866.6**	**8.9**
EBITDA Margin (%)		30.4%	40.6%	-	(10.2)
Depreciation		(5,579.0)	(5,259.2)	(319.8)	6.1
EBIT		**4,997.9**	**4,451.1**	**546.8**	**12.3**
Foreign exchange:					
- Transaction (loss)/gain		10.9	(15.3)	26.2	>100.0
- Translation gain (loss)/gain	4	(194.5)	(116.7)	(77.8)	66.7
Share of results of joint ventures		10.8	12.0	(1.2)	(10.0)
Share of results of associates		60.3	59.0	1.3	2.2
Profit before finance cost		**4,885.4**	**4,390.1**	**495.3**	**11.3**
Fair value changes of financial instrument	5	58.7	87.8	(29.1)	(33.1)
Finance income		122.5	112.0	10.5	9.4
Finance cost		(2,068.9)	(1,910.5)	(158.4)	8.3
Profit from ordinary activities before taxation		**2,997.7**	**2,679.4**	**318.3**	**11.9**
Taxation and Zakat:					
- Company and subsidiaries	6	(1,145.8)	(1,064.0)	(81.8)	7.7
- Deferred taxation		(75.1)	208.1	(283.2)	>(100.0)
Profit for the period		**1,776.8**	**1,823.5**	**(46.7)**	**(2.6)**
Attributable to:					
- Owners of the Company		1,765.3	1,780.2	(14.9)	(0.8)
- Non-controlling interests		11.5	43.3	(31.8)	(73.4)
Profit for the period		**1,776.8**	**1,823.5**	**(46.7)**	**(2.6)**

Y-o-Y analysis :

1. Higher revenue mainly due to ICPT surcharge of RM9,808.0 mil (1HFY21 rebate of RM12.7 mil) and higher sales of electricity.
2. Higher operating expenses mainly due to higher generation cost.
3. Includes lower ADD of RM75.4 mil (1HFY21 RM464.3 mil) and no impairment in 1HFY22.
4. Loss in Forex translation mainly due to weakening of MYR against USD.
5. Lower fair value of financial instruments mainly due to lower gain on swap in TNBI.
6. Higher tax expenses due to Prosperity Tax and deferred tax.

Quarter vs Previous Quarter (2QFY22 vs 1QFY22) analysis

RM mil		2QFY22	1QFY22	Variance RM mil	Variance %
Revenue	1	19,140.3	15,658.5	3,481.8	22.2
Operating expenses (without depreciation)	2	(13,907.8)	(10,663.6)	(3,244.2)	30.4
Net loss on impairment of financial instruments		(44.5)	(35.7)	(8.8)	24.6
Other operating income		251.1	178.6	72.5	40.6
EBITDA		**5,439.1**	**5,137.8**	**301.3**	**5.9**
EBITDA Margin (%)		28.4%	32.8%	-	(4.7)
Depreciation		(2,810.8)	(2,768.2)	(42.6)	1.5
EBIT		**2,628.3**	**2,369.6**	**258.7**	**10.9**
Foreign exchange:					
- Transaction (loss)/gain		10.6	0.3	10.3	>100.0
- Translation gain (loss)/gain	3	(237.2)	42.7	(279.9)	>(100.0)
Share of results of joint ventures		4.8	6.0	(1.2)	(20.0)
Share of results of associates		30.3	30.0	0.3	1.0
Profit before finance cost		**2,436.8**	**2,448.6**	**(11.8)**	**(0.5)**
Fair value changes of financial instrument		18.5	40.2	(21.7)	(54.0)
Finance income		76.3	46.2	30.1	65.2
Finance cost		(1,065.9)	(1,003.0)	(62.9)	6.3
Profit from ordinary activities before taxation		**1,465.7**	**1,532.0**	**(66.3)**	**(4.3)**
Taxation and Zakat:					
- Company and subsidiaries	4	(615.9)	(529.9)	(86.0)	16.2
- Deferred taxation		55.8	(130.9)	186.7	>(100.0)
Profit for the period		**905.6**	**871.2**	**34.4**	**3.9**
Attributable to:					
- Owners of the Company		872.2	893.1	(20.9)	(2.3)
- Non-controlling interests		33.4	(21.9)	55.3	>(100.0)
Profit for the period		**905.6**	**871.2**	**34.4**	**3.9**

Q vs Previous Quarter analysis :

1. Higher revenue mainly due to higher ICPT surcharge of RM6,302.6 mil (1QFY22 surcharge of RM3,505.4 mil), and higher sales of electricity.
2. Higher OPEX mainly due to higher generation cost.
3. Loss in Forex translation mainly due to weakening of MYR against USD.
4. Higher tax expenses due to Prosperity Tax.

Y-o-Y normalised EBITDA & PAT for 1HFY22

EBITDA Components		1HFY22 RM mil	1HFY21 RM mil
Reported EBITDA		10,576.9	9,710.3
Impairment		-	455.8
Additional ADD for TNB*		46.9	364.2
MFRS16 impact	1	(2,203.0)	(2,130.6)
Normalised EBITDA		8,420.8	8,399.7

PAT Components		1HFY22 RM mil	1HFY21 RM mil
Reported PAT		1,776.8	1,823.5
Impairment		-	455.8
Additional ADD for TNB*		46.9	364.2
Forex Translation		194.5	116.7
MFRS16 impact	1	474.1	286.4
Normalised PAT	2	2,492.3	3,046.6

**ADD 1HFY22 : RM75.4 mil, approved ADD FY22 : RM 57.1mil*
ADD 1HFY21 : RM464.3 mil, approved ADD FY21 : RM200.3 mil

1 Please refer MFRS16 impact slide for details.

2 **Lower Normalised PAT in 1HFY22 mainly due to:**

	RM mil
Higher deferred tax	283.2
Prosperity Tax	257.3
Total	**540.5**

Higher Y-o-Y sales of electricity and contribution from subsidiaries due to less business restrictions

	2QFY22		1QFY22		Variance (2QFY22 vs 1QFY22)		1HFY22		1HFY21		Variance (1HFY22 vs 1HFY21)	
UNITS SOLD	GWh		GWh		GWh	%	GWh		GWh		GWh	%
Sales of Electricity (GWh)												
- TNB	30,159.7		28,959.3	1	1,200.4	4.1	59,119.0		55,907.9	1	3,211.1	5.7
- SESB	1,445.2		1,384.3		60.9	4.4	2,829.5		2,666.5		163.0	6.1
- EGAT (Export)	0.1		0.2		(0.1)	(50.0)	0.3		0.8		(0.5)	-
- LPL	-		-	2	-	(100.0)	-		501.2	2	(501.2)	(100.0)
- TNBI (UK Wind)	18.0		26.5	3	(8.5)	(32.1)	44.5		38.5	3	6.0	15.6
- TNBI (Vortex)	142.1		58.3	4	83.8	>100.0	200.4		189.4	4	11.0	5.8
- TNBI (CEI UK LTD)	52.9		-	5	52.9	>100.0	52.9		-		52.9	>100.0
Total Units Sold (GWh)	**31,818.0**		**30,428.6**		**1,389.4**	**4.6**	**62,246.6**		**59,304.3**		**2,942.3**	**5.0**
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	12,210.3	40.24	11,287.9	40.10	922.4	8.2	23,498.2	40.17	22,734.6	39.94	763.6	3.4
- Sales Discount	-		-		-	(100.0)	-		(65.4)		65.4	(100.0)
- SESB	497.2	33.93	468.3	34.70	28.9	6.2	965.5	34.30	914.7	34.83	50.8	5.6
- Sales Discount	-		-		-	(100.0)	-		(0.6)		0.6	(100.0)
- Accrued Revenue	(81.0)		153.0		(234.0)	>(100.0)	72.0		(392.6)		464.6	>(100.0)
- EGAT (Export)	-	-	0.3	-	(0.3)	(100.0)	0.3	-	0.2	-	0.1	50.0
- LPL	-		-		-	(100.0)	-	-	153.1	30.55	(153.1)	(100.0)
- TNBI (UK Wind)	25.4	141.11	37.1	140.00	(11.7)	(31.5)	62.5	140.45	54.0	131.74	8.5	15.7
- TNBI (Vortex)	110.3	77.62	46.7	80.10	63.6	>100.0	157.0	78.34	134.9	-	22.1	16.4
- TNBI (CEI UK LTD)	37.6	71.08	-		37.6	>100.0	37.6	71.08	-	-	37.6	>100.0
Sales of Electricity	**12,799.8**	**40.23**	**11,993.3**	**39.41**	**806.5**	**6.7**	**24,793.0**	**39.83**	**23,532.9**	**39.68**	**1,260.1**	**5.4**
Imbalance Cost Pass Through	6,302.6		3,505.4		2,797.2	79.8	9,808.0		(12.7)		9,820.7	>(100.0)
Other Regulatory Adjustment	(294.7)		(156.7)	6	(138.0)	88.1	(451.4)		(251.5)	6	(199.9)	79.5
Relief Package from Government	-		0.6		(0.6)	(100.0)	0.6		61.6		(61.0)	(99.0)
SESB Tariff Support Subsidy	68.2		63.9		4.3	6.7	132.1		181.8		(49.7)	(27.3)
Others	-		-		-	(100.0)	-		(37.4)		37.4	(100.0)
Total Sales of Electricity	**18,875.9**		**15,406.5**		**3,469.4**	**22.5**	**34,282.3**		**23,474.7**		**10,807.6**	**46.0**
Goods & Services	165.2		148.0		17.2	11.6	313.2		300.7		12.5	4.2
Construction contracts	29.8		37.5		(7.7)	(20.5)	67.3		23.1		44.2	>100.0
Customers' Contribution	69.4		66.5		2.9	4.4	135.9		120.5		15.4	12.8
Total Revenue	**19,140.3**		**15,658.5**		**3,481.8**	**22.2**	**34,798.7**		**23,919.0**		**10,879.7**	**45.5**

1. 2QFY22 vs 1QFY22 and 1HFY22 vs 1HFY21 : Higher units sold & sales of electricity from all sectors.

2. Divestment of LPL on 30 Nov'21.

3. 2QFY22 vs 1QFY22 : Lower generation (wind) due to seasonality factor (summer season).

   1HFY22 vs 1HFY21 : Higher generation mainly due to favourable wind speed across the UK as compared to previous year.

4. 2QFY22 vs 1QFY22 : Higher generation (solar) due to seasonality factor (summer season).

   1HFY22 vs 1HFY21 : Higher generation (solar) due to higher irradiance.

5. Acquisition of 97.3MW onshore wind (Clean Energy Infrastructure United Kingdom Limited) portfolio in April 2022.

6. Refer Other Regulatory Adjustment slide.

As at 1HFY22, RM451.4 mil of other regulatory adjustment to be returned

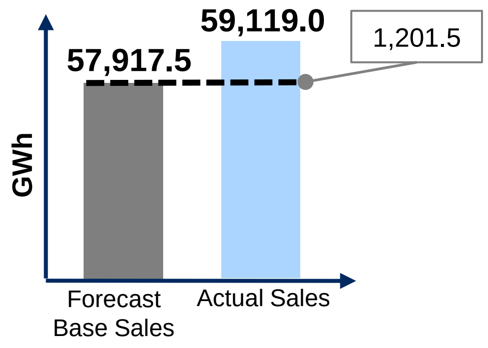
Components of Other Regulatory Adjustment	1QFY22 (RM mil)	2QFY22 (RM mil)	1HFY22 (RM mil)
1 Revenue Adjustment for Revenue Cap & Price Cap	(44.2)	(239.4)	(283.6)
Refund Related to Regulated Business	(113.1)	(63.9)	(177.0)
Regulatory Adjustment for SESB*	0.6	8.6	9.2
TOTAL	**(156.7)**	**(294.7)**	**(451.4)**

*SESB has implemented IBR framework starting 1 January 2022

1

Revenue Cap

FY22 Variations in Sales (in GWh)

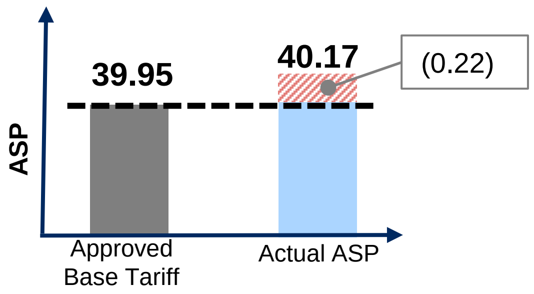


- The allowed annual revenue for revenue cap entities is based on 1.7% demand growth. Any excess/shortfall is adjusted through revenue adjustment mechanism.
- For 1HFY22, higher actual sales leads to amount to be returned via revenue adjustment mechanism.

Business Entities	Allowed Tariff (sen/kWh)	Variations in Sales (GWh)	Adjustment (RM mil)
Revenue Cap Entities	12.60	1,201.5	(151.2)*

Price Cap

FY22 Variations in ASP (sen/kWh)

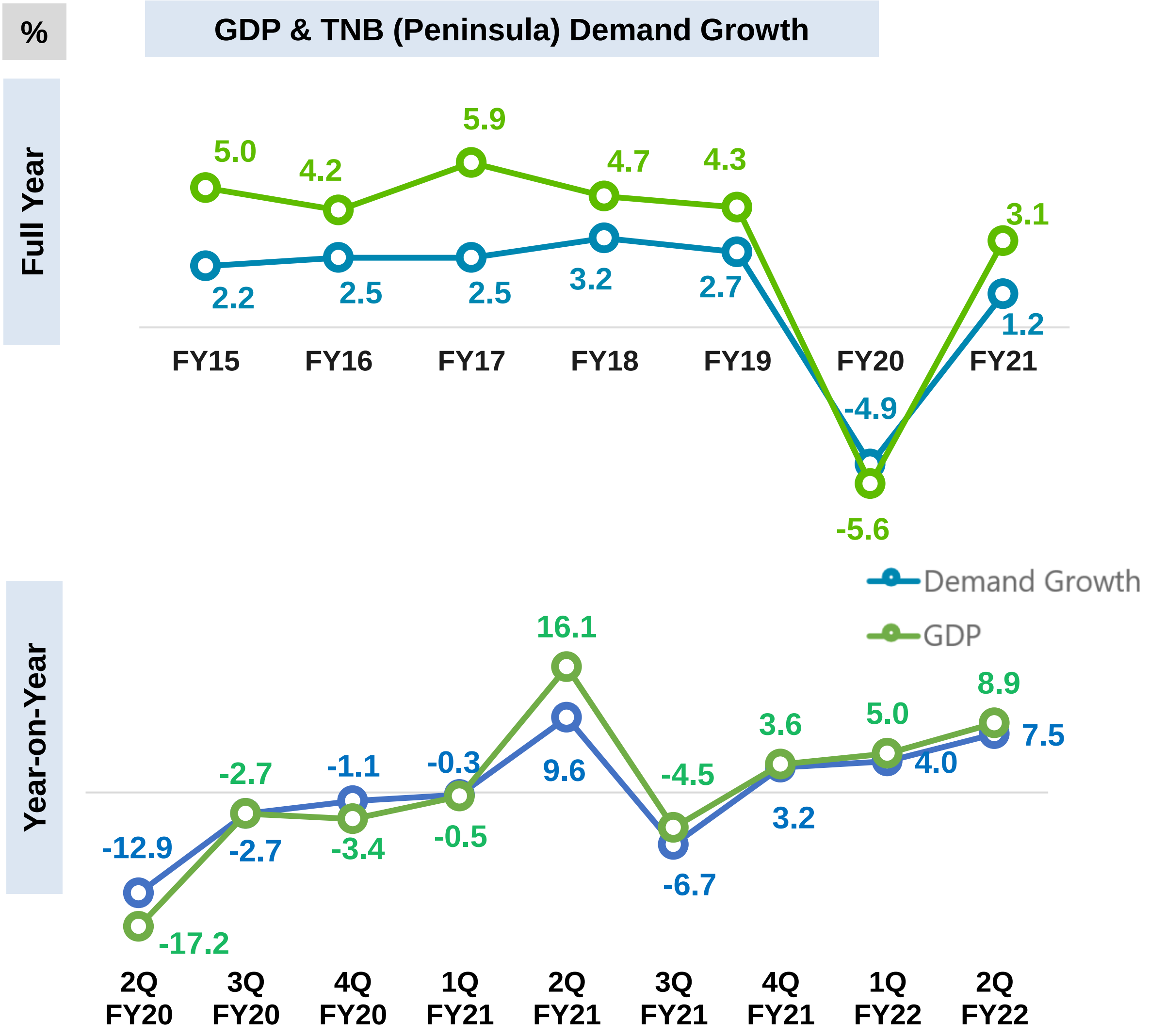


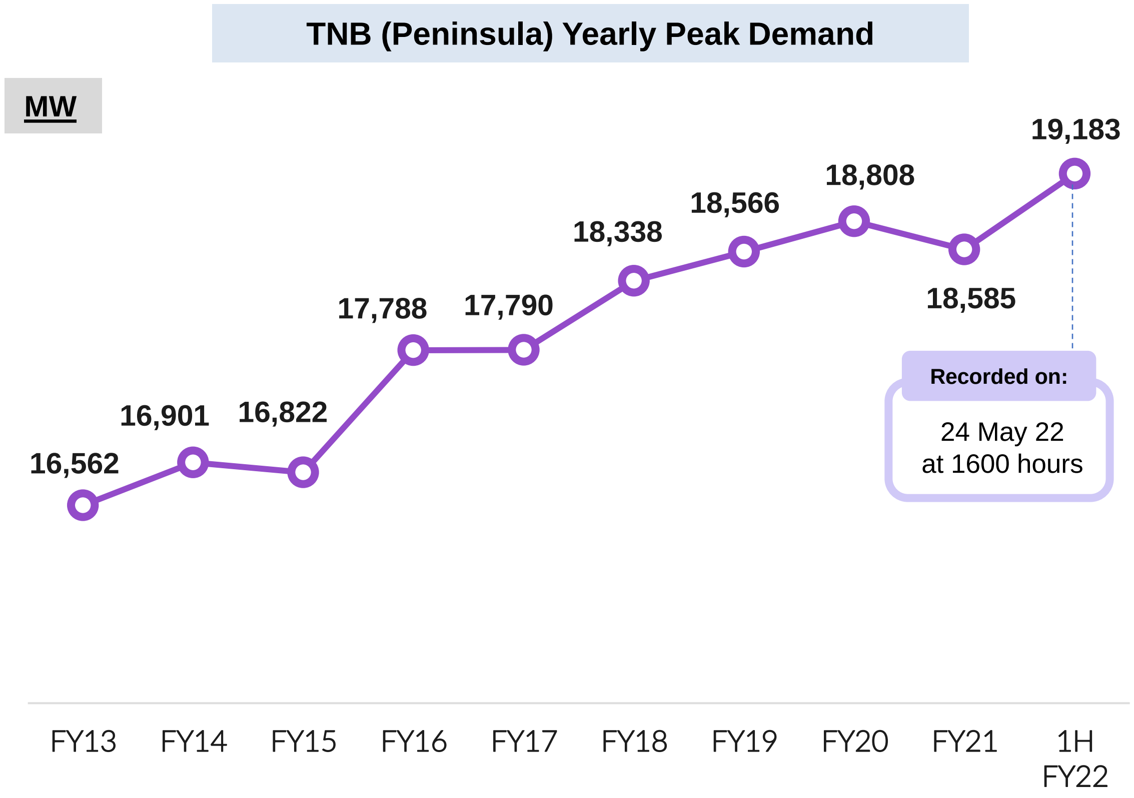
- Any excess/shortfall of revenue earned due to higher/lower Average Selling Price (ASP) compared to Base Tariff is adjusted through revenue adjustment mechanism.
- For 1HFY22, the ASP is recorded higher than the Base Tariff, amount to be returned via revenue adjustment mechanism.

Business Entities	Actual Sales (GWh)	Variations in ASP (sen/kWh)	Adjustment (RM mil)
Price Cap Entity	59,119.0	(0.22)	(132.4)*

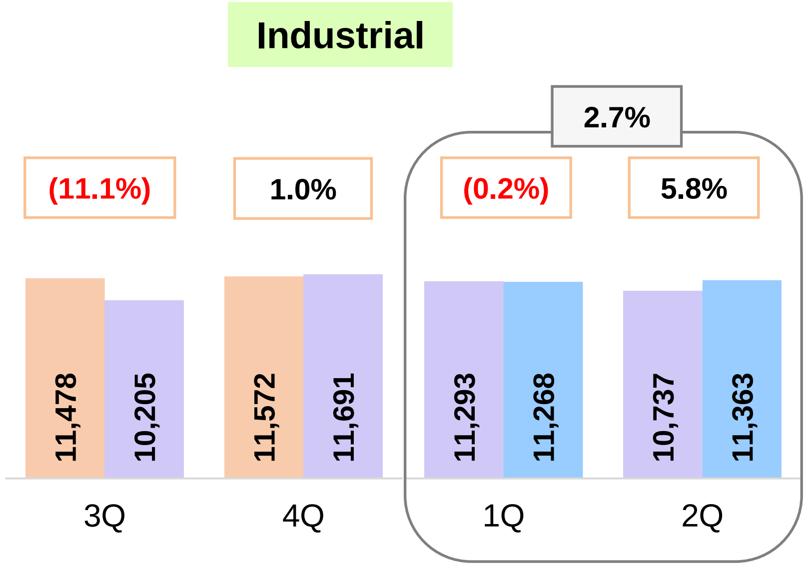
** Numbers manually computed will not match due to decimal variance*

Y-o-Y electricity demand in tandem with GDP



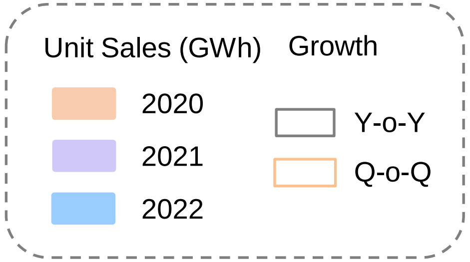


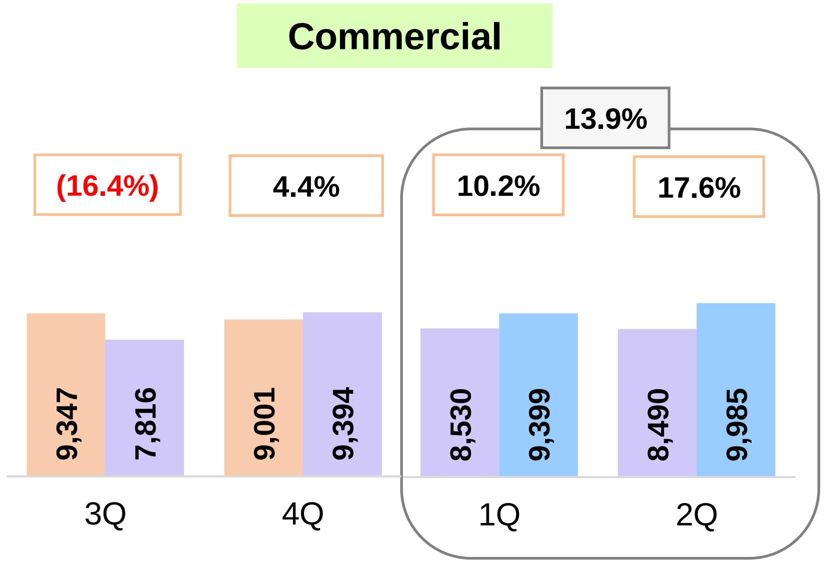
Higher Y-o-Y TNB (Peninsula) electricity demand driven by growth in all sectors

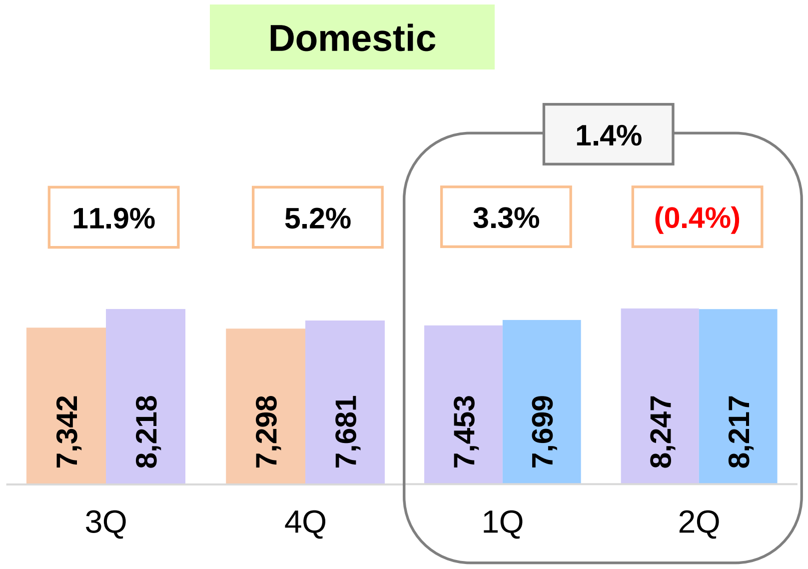


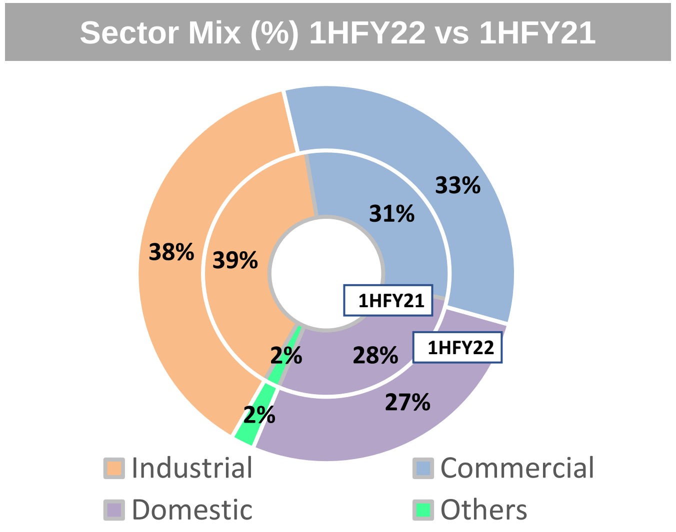
1HFY22 main contributors for the increase in commercial sector:

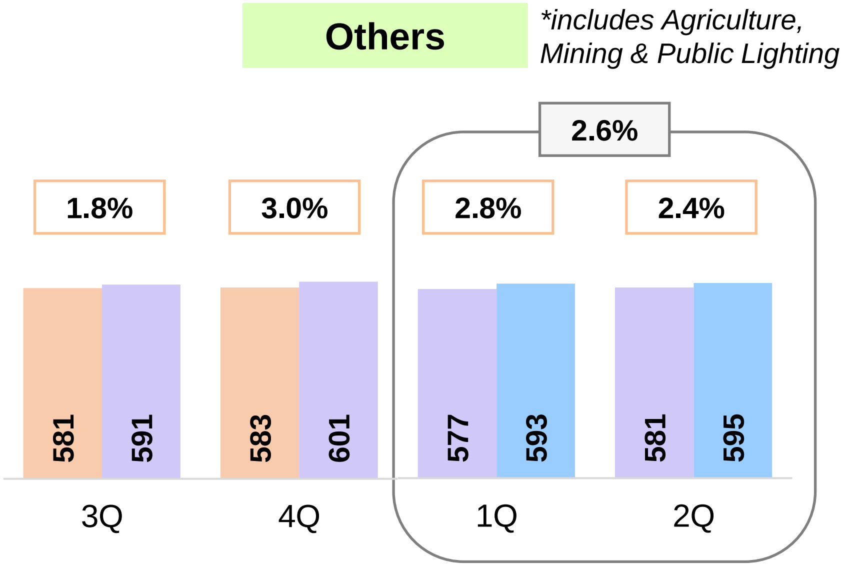
- **Retails**
- **Accommodation services**
- **Business services**











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

	2QFY22 (RM mil)	1QFY22 (RM mil)	Variance (2QFY22 vs 1QFY22)		1HF22 (RM mil)	1HFY21 (RM mil)	Variance (1HFY22 vs 1HFY21)	
			RM mil	%			RM mil	%
Non-TNB IPPs Costs	**4,123.7**	**3,440.6**	**683.1**	**19.9**	**7,564.3**	**3,601.5**	**3,962.8**	**110.0**
Capacity Payment	(89.2)	(99.2)	10.0	(10.1)	(188.4)	71.6	(260.0)	(363.1)
Energy Payment	4,212.9	3,539.8	673.1	19.0	7,752.7	3,529.9	4,222.8	>100.0
TNB Fuel Costs	**7,510.9**	**4,926.5**	**2,584.4**	**52.5**	**12,437.4**	**5,631.9**	**6,805.5**	**120.8**
Fuel Costs	4,670.9	4,040.9	630.0	15.6	8,711.8	4,676.3	4,035.5	86.3
Fuel Price Adjustment	3,096.4	1,007.6	2,088.8	>100.0	4,104.0	1,072.2	3,031.8	>100.0
Fuel Subsidy - SESB	(256.4)	(122.0)	(134.4)	>100.0	(378.4)	(116.6)	(261.8)	>100.0
Total Cost of Generation 1	**11,634.6**	**8,367.1**	**3,267.5**	**39.1**	1 **20,001.7**	**9,233.4**	**10,768.3**	**116.6**
Staff Costs	**946.5**	**925.4**	**21.1**	**2.3**	**1,871.9**	**1,948.7**	**(76.8)**	**(3.9)**
Repair & Maintenance 2	**539.8**	**475.1**	**64.7**	**13.6**	2 **1,014.9**	**938.2**	**76.7**	**8.2**
TNB General Expenses	**371.5**	**445.7**	**(74.2)**	**(16.6)**	**817.2**	**767.9**	**49.3**	**6.4**
Subs. General Expenses	**415.4**	**450.3**	**(34.9)**	**(7.8)**	3 **865.7**	**1,056.9**	**(191.2)**	**(18.1)**
Total Non-Generation Cost	**2,273.2**	**2,296.5**	**(23.3)**	**(1.0)**	**4,569.7**	**4,711.7**	**(142.0)**	**(3.0)**
Total Operating Expenses (without Depreciation)	**13,907.8**	**10,663.6**	**3,244.2**	**30.4**	**24,571.4**	**13,945.1**	**10,626.3**	**76.2**
Depreciation & Amortisation	**2,810.8**	**2,768.2**	**42.6**	**1.5**	4 **5,579.0**	**5,259.2**	**319.8**	**6.1**
Total Operating Expenses	**16,718.6**	**13,431.8**	**3,286.8**	**24.5**	**30,150.4**	**19,204.3**	**10,946.1**	**57.0**

1. 2QFY22 vs 1QFY22: Higher generation cost due to higher coal prices (USD221.4/MT vs USD165.5/MT).

   1HFY22 vs 1HFY21 : Higher generation cost mainly due to higher coal prices (USD198.0/MT vs USD86.0/MT).

2. Higher expenses mainly due to higher R&M related cost .

3. 1HFY22 vs 1HFY21 : Lower mainly due to impairment on investment made for GMR in 1HFY21.

4. 1HFY22 vs 1HFY21 : Higher depreciation mainly due to MFRS16 adjustment for EDRA Melaka power plant.

Higher Y-o-Y fuel cost mainly due to higher fuel prices

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

Fuel Type	1HFY22	1HFY21	Variance RM mil	Variance %
Coal	13,392.2	5,563.4	7,828.8	>100.0
Gas	5,141.5	2,481.9	2,659.6	>100.0
Dist.	509.2	46.5	462.7	>100.0
Oil	0.0	0.7	(0.7)	(100.0)
Total*	19,042.9	8,092.5	10,950.4	135.3

* Comprise TNB Fuel Cost & fuel payment to IPPs (part of Energy Payment)

Note: Fuel Cost exclude solar

Table C – Fuel Costs Related Data

	1HFY22	1HFY21
Daily Average Piped Gas Volume (mmscfd)	909	770
Gas Reference Market Price (RM/mmbtu)	1Q Tier 1 : 30.0 Tier 2 : 36.9 2Q Tier 1 : 30.0 Tier 2 : 38.2	1Q - 15.4 2Q - 18.9
Average Coal Price Delivered (USD/MT)(CIF)	198.0	86.0
Average Coal Price Delivered (RM/MT)(CIF)	847.3	352.2
Coal Consumption (mn MT)	15.8	16.1
Generation cost per unit (sen/kWh)	29.3	13.0

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

Fuel Type	1HFY22	1HFY21	Variance Gwh	Variance %
Coal	36,396.9	36,800.9	(404.0)	(1.1)
Gas & LNG	24,762.1	21,221.1	3,541.0	16.7
Dist.	476.3	47.0	429.3	>100.0
Hydro	2,678.1	3,593.7	(915.6)	(25.5)
Solar	703.5	569.7	133.8	23.5
Total	65,016.9	62,232.4	2,784.5	4.5

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

	1HFY22	1HFY21	Variance USD	Variance %
FOB	184.2	75.9	108.3	142.7
Freight	13.3	9.6	3.7	38.4
Others	0.5	0.5	0.0	0.0
CIF	198.0	86.0	112.0	130.3

Higher 2Q vs 1Q fuel cost mainly due to higher fuel prices

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

Fuel Type	2QFY22	1QFY22	Variance RM mil	Variance %
Coal	8,410.4	4,981.8	3,428.6	68.8
Gas	2,619.6	2,521.9	97.7	3.9
Dist.	94.7	414.5	(319.8)	(77.2)
Oil	0.0	0.0	0.0	0.0
Total*	11,124.7	7,918.2	(3,206.5)	(28.8)

* Comprise TNB Fuel Cost & fuel payment to IPPs (part of Energy Payment)

Note: Fuel Cost exclude solar

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

Fuel Type	2QFY22	1QFY22	Variance Gwh	Variance %
Coal	19,164.8	17,232.1	1,932.7	11.2
Gas & LNG	12,309.8	12,452.3	(142.5)	(1.1)
Dist.	137.1	339.2	(202.1)	(59.6)
Oil	-	-	0.0	0.0
Hydro	1,134.7	1,543.4	(408.7)	(26.5)
Solar	401.5	302.0	99.5	32.9
Total	33,147.9	31,869.0	1,278.9	3.9

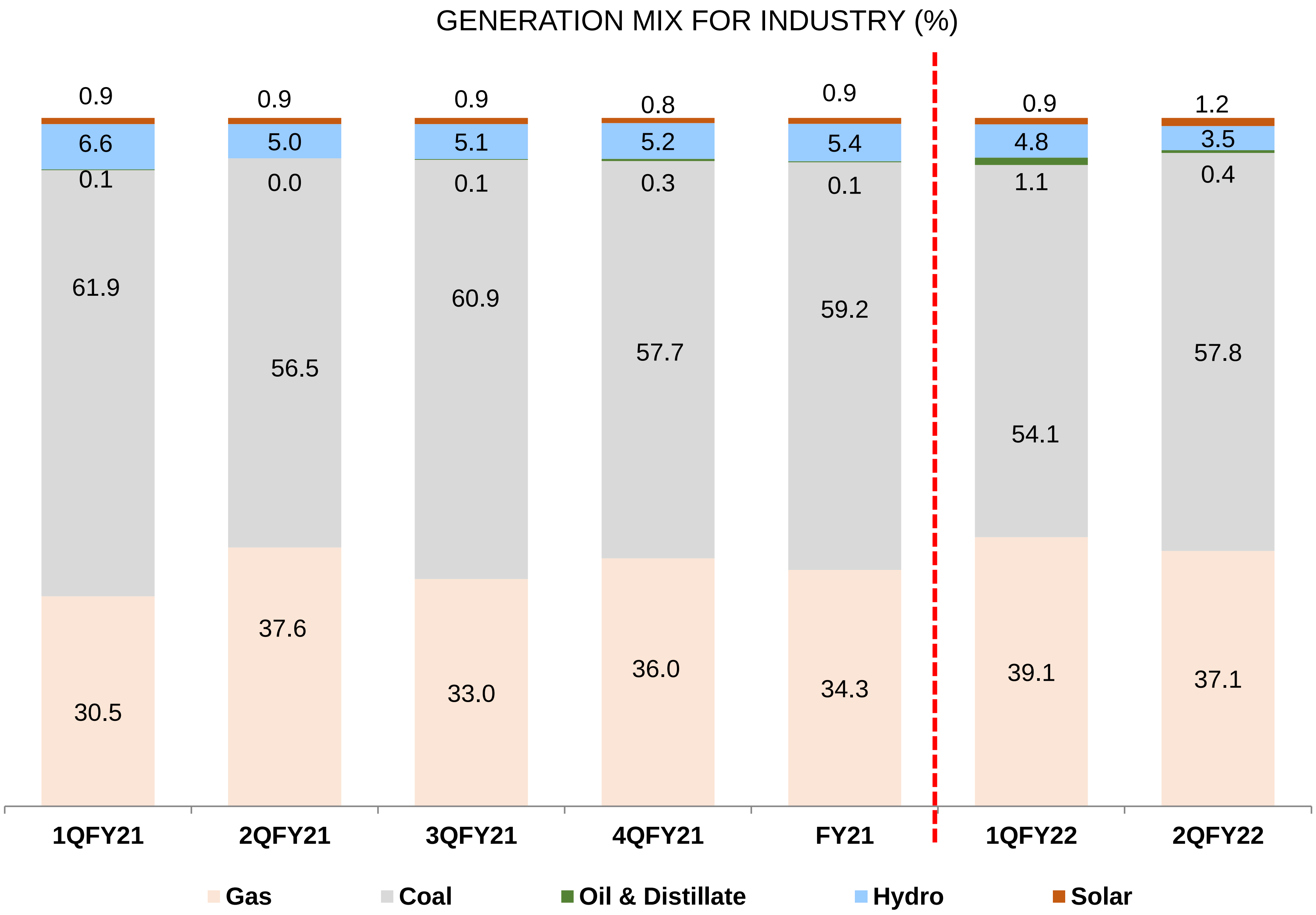
Table C – Fuel Costs Related Data

	2QFY22	1QFY22
Daily Average Piped Gas Volume (mmscfd)	905	912
Gas Reference Market Price (RM/mmbtu)	Tier 1 : 30.0 Tier 2 : 38.2	Tier 1 : 30.0 Tier 2 : 36.9
Average Coal Price Delivered (USD/MT)(CIF)	221.4	165.5
Average Coal Price Delivered (RM/MT)(CIF)	960.4	696.3
Coal Consumption (mn MT)	8.4	7.4
Generation cost per unit (sen/kWh)	33.6	24.8

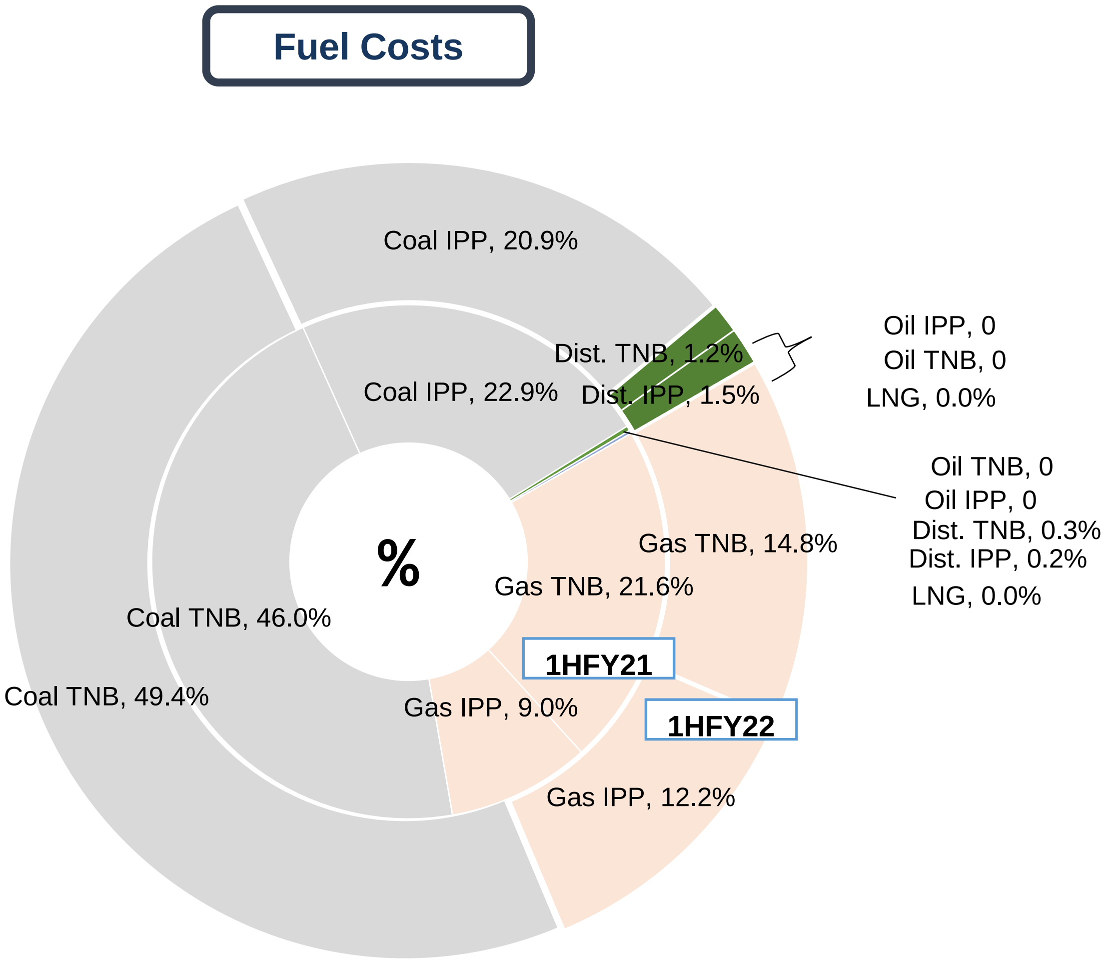
Table D – Average Coal Price Delivered (USD/MT)

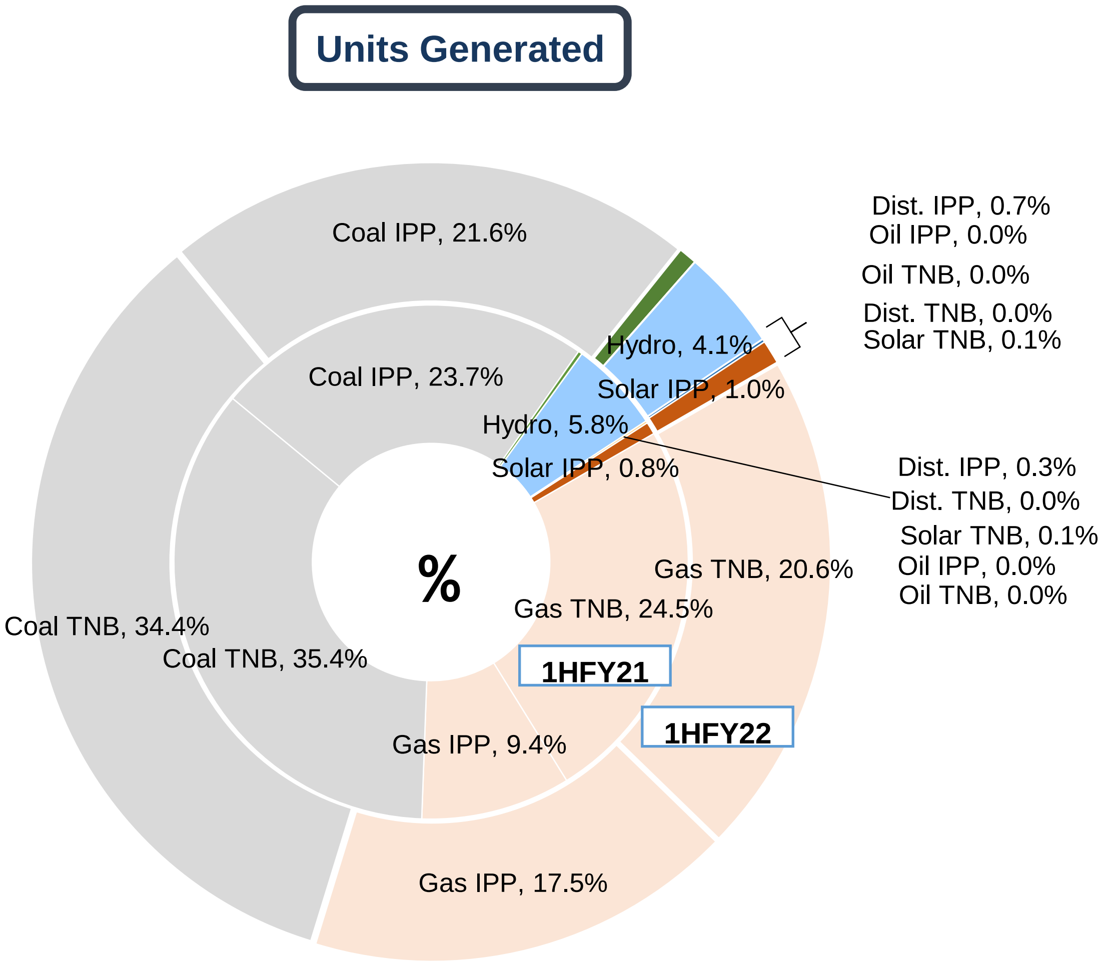
	2QFY22	1QFY22	Variance USD	Variance %
FOB	207.1	152.3	54.8	36.0
Freight	13.8	12.6	1.2	9.3
Others	0.5	0.5	(0.0)	(5.9)
CIF	221.4	165.5	(55.9)	(25.3)

Higher units generated from coal in 2QFY22 vs 1QFY22



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





% indicates generation market share

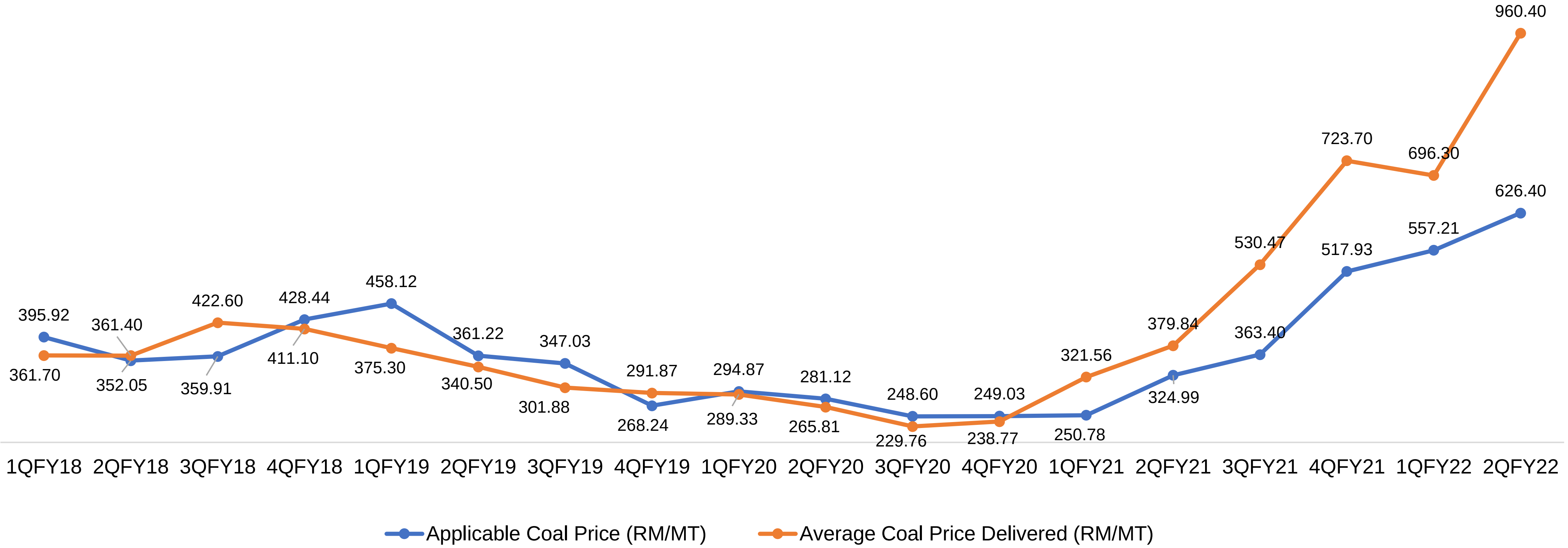
Note: Fuel Cost exclude solar and hydro

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

	2QFY21 (RM mil)	3QFY21 (RM mil)	4QFY21 (RM mil)	1QFY22 (RM mil)	2QFY22 (RM mil)
Reported Total Cost of Generation (with MFRS16)	5,033.5	6,107.3	8,438.1	8,367.1	11,634.6
Adjustment not related to IBR	830.9	756.6	753.6	909.5	948.3
TNB Capacity and VOR: SLA & SPV	1,689.3	1,372.9	1,594.8	1,816.1	1,621.5
Total Generation Costs (Related to IBR)	**7,553.7**	**8,236.8**	**10,786.5**	**11,092.7**	**14,204.4**

	2QFY21 (RM mil)	3QFY21 (RM mil)	4QFY21 (RM mil)	1QFY22 (RM mil)	2QFY22 (RM mil)
Single Buyer Actual Generation Costs: **(A)**	7,553.7	8,236.8	10,786.5	11,092.7	14,204.4
Actual Sales (GWh)	28,055.1	26,830.8	29,367.3	28,959.3	30,159.7
Single Buyer Tariff (RM/kWh)	0.2580	0.2580	0.2580	0.2620	0.2620
Actual Gen Cost Recovered (RM mil) **(B)**	7,239.1	6,923.2	7,577.7	7,587.3	7,901.8
ICPT Surcharge / (Rebate) (C) (C = A – B)	**314.6**	**1,313.5**	**3,208.8**	**3,505.4**	**6,302.6**

Coal price trending



<u>Coal price & Applicable Coal Price (ACP) comparison</u>

	3QFY21	4QFY21	1QFY22	2QFY22
Average Coal Price Delivered (RM/MT)	520.47	723.70	696.30	960.40
Average Coal Price Delivered (RM/mmbtu) *	23.61	32.88	31.88	46.76
ACP (RM/mmbtu)	16.65	23.73	25.53	28.70

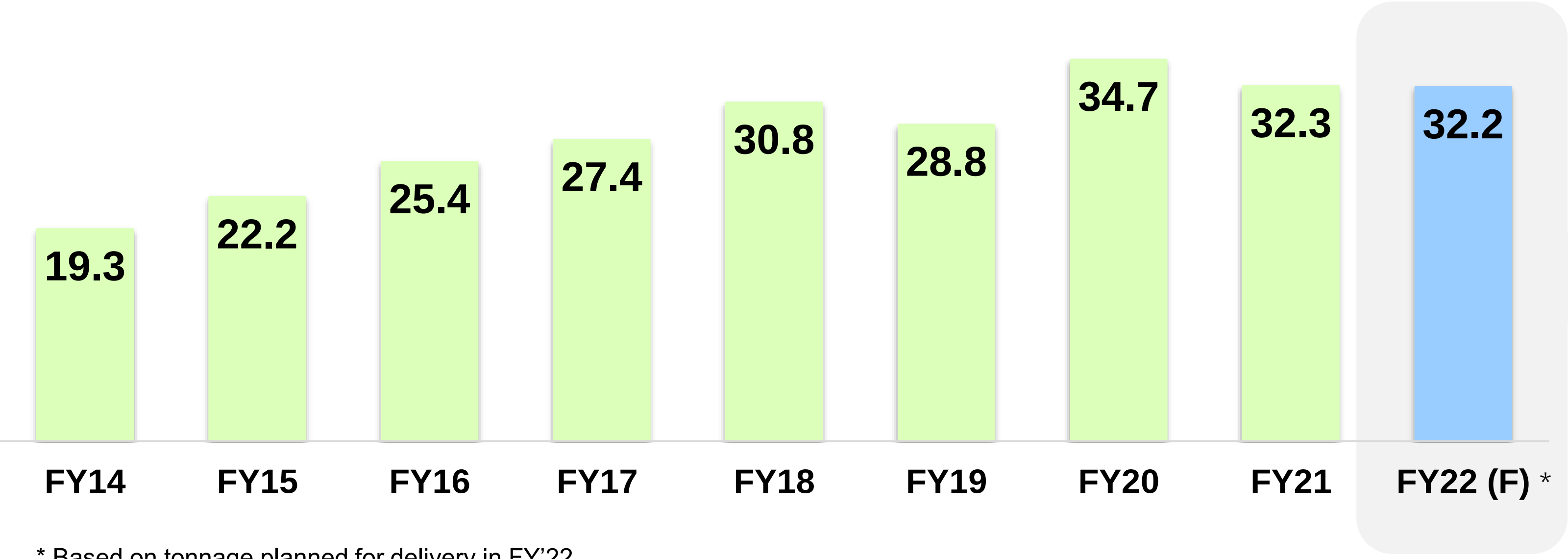
* Based on internal conversion

- 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 2QFY22, the base ACP (RM28.70/mmbtu) used for billing the generators is lower than the coal price paid to supplier (RM46.76/mmbtu).

Industry coal requirement forecast for FY2022

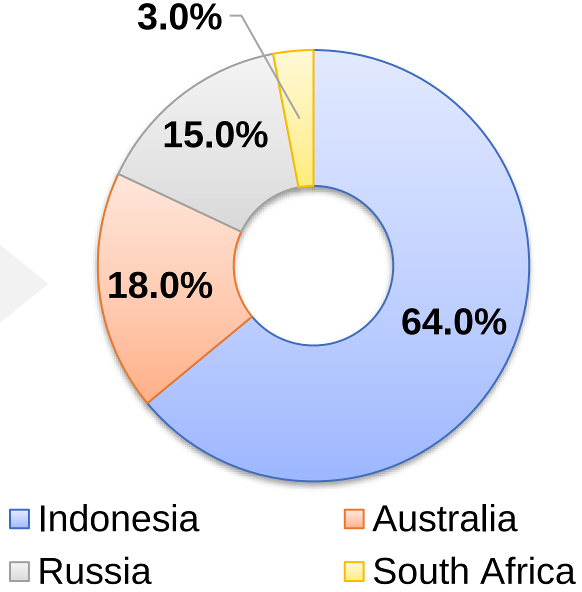
Average Coal Price (CIF)	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	1HFY22
USD/metric tonne (MT)	75.4	66.0	55.7	72.7	95.9	79.3	60.6	116.2	198.0
RM/metric tonne (MT)	244.6	236.0	231.1	314.7	388.1	326.3	255.6	481.3	847.3

Coal Consumption (mil MT)



* Based on tonnage planned for delivery in FY'22

Country Mix



The net impact of MFRS 16 reduced the group PAT by RM474.1 mil

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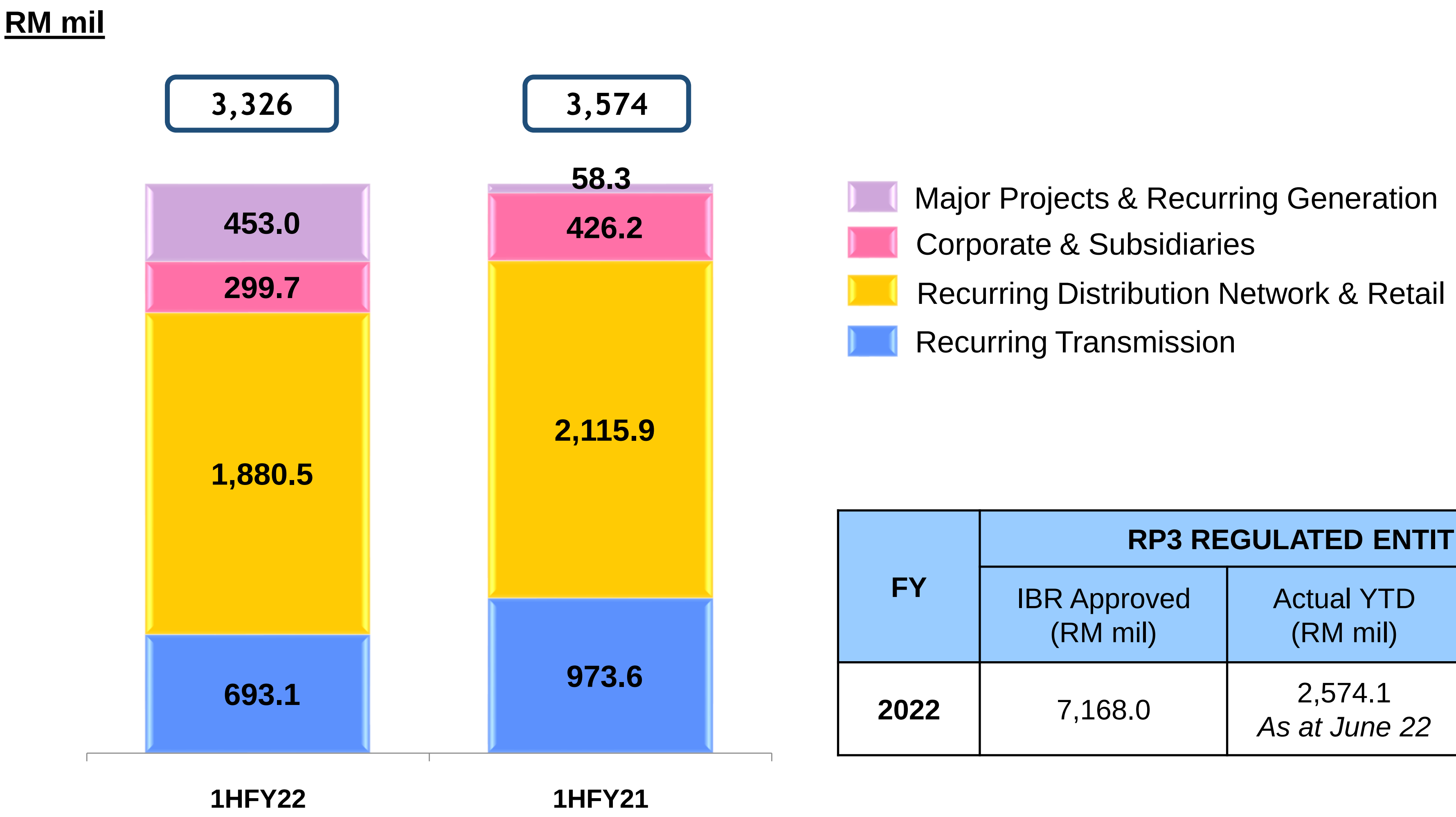
Net Impact of MFRS 16 (Y-o-Y) analysis

	1HFY22 (RM mil)	1HFY21 (RM mil)	Variance (RM mil)	Remarks
Capacity Payment	2,203.0	2,130.6	72.4	**Increasing EBITDA and PAT in FY'22**
Depreciation	(1,928.7)	(1,756.1)	(172.6)	**Decreasing PAT in FY'22**
Finance Cost	(887.8)	(740.4)	(147.4)	**Decreasing PAT in FY'22**
Deferred Tax	139.4	79.5	59.9	**Increasing PAT in FY'22**
Net Impact	**(474.1)**	**(286.4)**	**(187.7)**	**Decreasing PAT in FY'22**

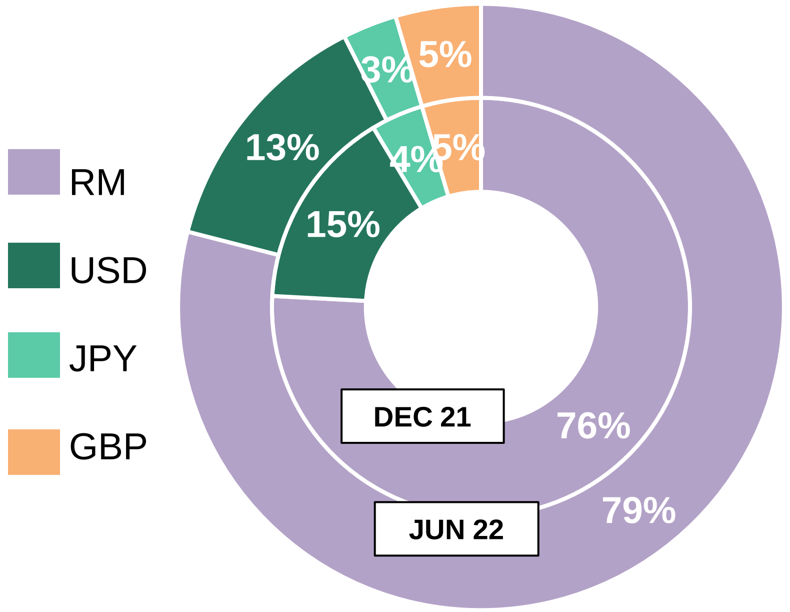
Group CAPEX



FY	RP3 REGULATED ENTITIES CAPEX		
	IBR Approved (RM mil)	Actual YTD (RM mil)	Utilisation (%)
2022	7,168.0	2,574.1 *As at June 22*	36%

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

Gearing stood at 51.1% in 1HFY22



Closing FOREX	30 Jun 22	31 Dec 21
USD/RM	4.41	4.17
100YEN/RM	3.23	3.63
GBP/RM	5.35	5.64

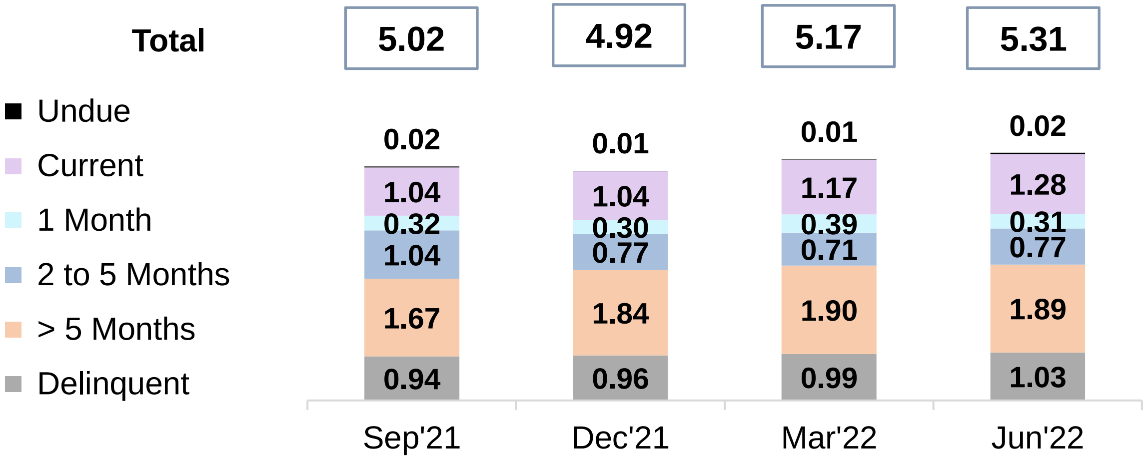
Statistics	30 Jun 22	31 Dec 21
Total Debt (RM bil)	62.6	51.7
Net Debt (RM bil)*	48.9	42.5
Gearing (%)	51.1	47.0
Net Gearing (%)	40.1	38.6
Fixed : Floating		
Underlying	96:4	95:5
Final Exposure	99:1	99:1
Effective Average Cost of Borrowing (based on exposure) **	4.51	4.61

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

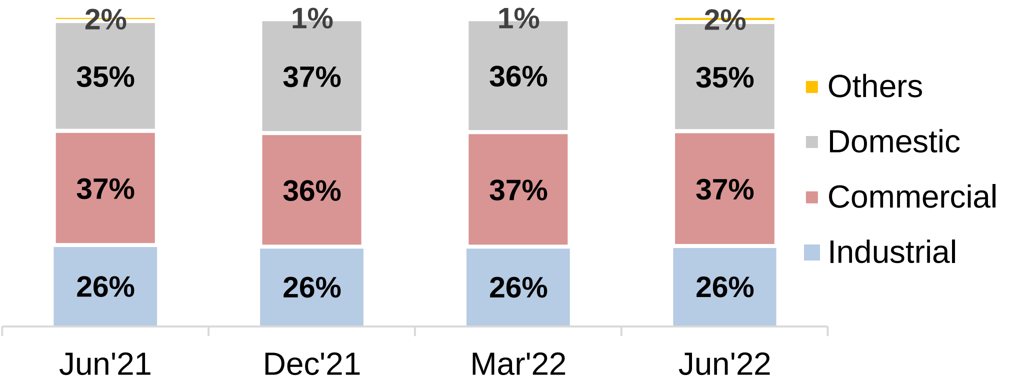
Note:
Debt consists of Principal + Accrued Interest

Continuous stringent initiatives are undertaken to mitigate deterioration of credit risks

Trade Debtors Ageing (RM bil)



Trade Debtors By Sectors



Initiatives to improve collection

- Easy payment plans for domestic / residential customers' electricity bills.
- Repayment plan on case by case basis for non-Domestic customers.
- Promote adoption of digital payment channels such as myTNB app and myTNB portal.
- Introduce more payment channels such as 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.

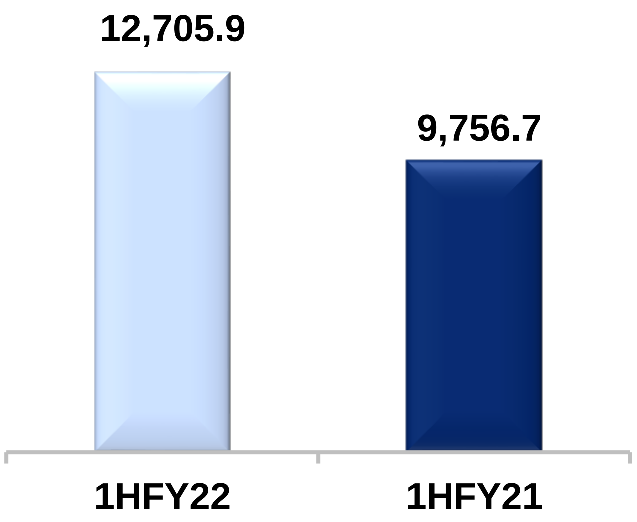
Cash flow

- We continuously monitor our cash flow position on a daily basis and remain prudent on our working capital management.
- In the event there is a shortfall in the cash flow position, we have readily available short term banking facilities and funding program to manage the funding gap.
- For 1HFY22, the allowance for doubtful debt for TNB is RM75.4mil.

Domestic generation business performance

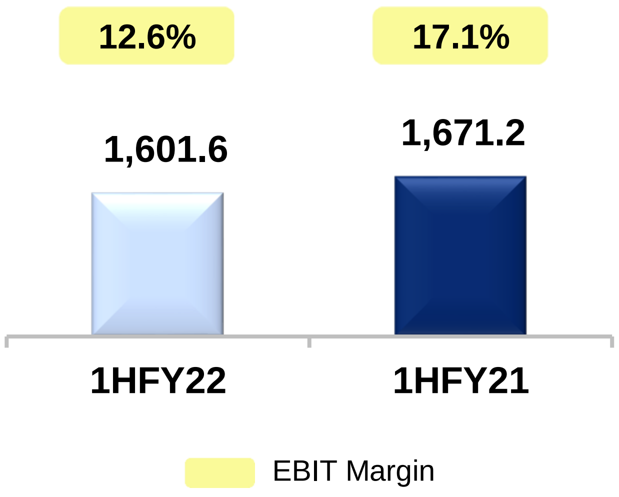
RM mil

REVENUE

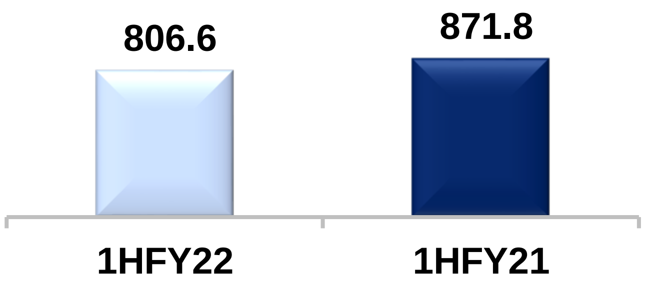


Higher revenue mainly due to higher energy payment resulted from higher fuel prices.

EBIT



PROFIT AFTER TAX

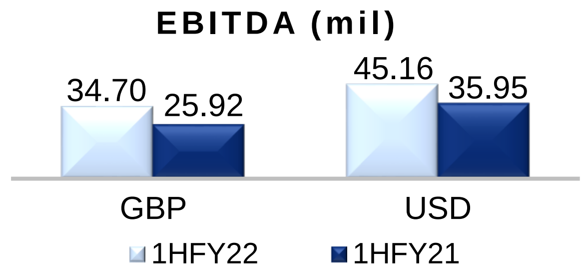


Note: Includes generation related subsidiaries

International Business – Core/Renewable Energy Assets

International Performance as at Jun’22

Vantage RE | EM: 74%



- Higher EBITDA YoY from VSUK and TWV, contributed by higher generation as a result of higher irradiance and favourable wind speed conditions experienced across the UK in Q2 2022. Improved performance is further supported by higher locked-in PPA prices for both assets.
- The addition of onshore wind asset (97.3MW) has resulted in an increase to EBITDA by GBP5.3 mil from April 2022 to June 2022.
- The total cash distribution declared to date amounting GBP66.53 mil.

Outlook for Vantage RE:

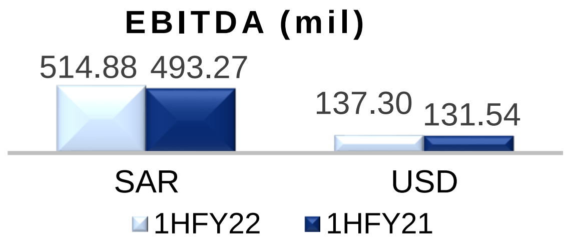
- Successfully completed acquisition of a 97.3MW operating onshore wind portfolio in the UK on 1 April 2022.
- Inflation increased to 9.4% in June 2022, marking the highest YoY inflation level for 40 years and is set to stay above the Central Bank’s 2.0% target this year. However, no adverse impact is anticipated as Vantage’s subsidy revenue is inflation linked and likely offset any increase in operating expenses.
- The Russia-Ukraine war has impacted gas supply to Europe causing an increase in gas prices. This has led to a jump in wholesale power prices, therefore creating a stronger drive to build more RE capacity in Europe to replace Russian gas imports. An increase in corporate demand for RE through PPAs is also expected - creating a positive outlook for Vantage.
- High prices for summer and winter 2023 have held in absence of a resolution to Russia-Ukraine conflict. The portfolio has successfully locked-in favorable PPA price for 2023/2024.
- Vantage Solar and 97.3MW onshore wind has also locked-in record high Renewable Energy Guarantees of Origin (REGO) prices with expected upside over the next 5 years.

Notes : EM : YTD EBITDA Margin

International Business – Non-Core Assets

International Performance as at Jun’22

Shuaibah — EM: 81%



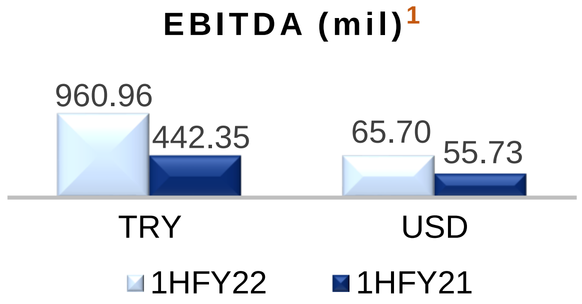
- Higher EBITDA YoY due to major forced outages experienced in SWEC (Water and Power) in March 2021 that led to lower generation revenues in Q1 2021 and better performance of SWEC in April 2022.
- Shuaibah maintains solid financial performance with

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.

Notes :
EM : YTD EBITDA Margin
[1]Reported 3 months lagging

GAMA Enerji A.S. (GEAS) — EM: 26%

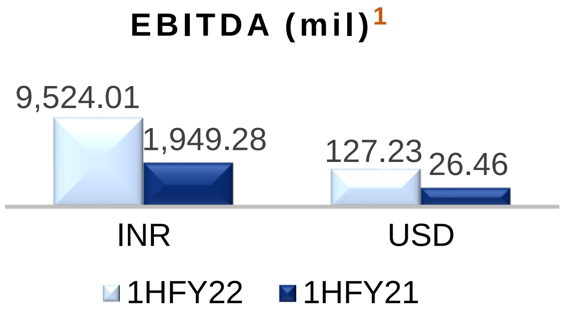


- Higher EBITDA YoY is mainly contributed by higher power prices as a result of higher share of gas generation and lower hydro generation.
- It is also driven by higher power demand recovery from COVID impact.

Outlook for GEAS:

- Turkey’s gas price is expected to increase in line with commodity prices. Despite the rise of gas price, wholesale electricity prices is also in rising trend, maintaining positive spark spread for CCGTs.
- GEAS is expected to remain operationally profitable (EBITDA) for the year as electricity price is expected to maintain elevated, with downside risk from shrinking spark spread if gas price outpaces electricity market price.
- Nevertheless, the successfully restructured debt within GEAS’s portfolio provides sustainability to weather through current volatility in the market. In the near term, GEAS is expected to secure payment for principal and interest for 2022 and 2023 from DIWACO's dividends & ICAN's cash flows.

GMR Energy Limited (GEL) — EM: 40%

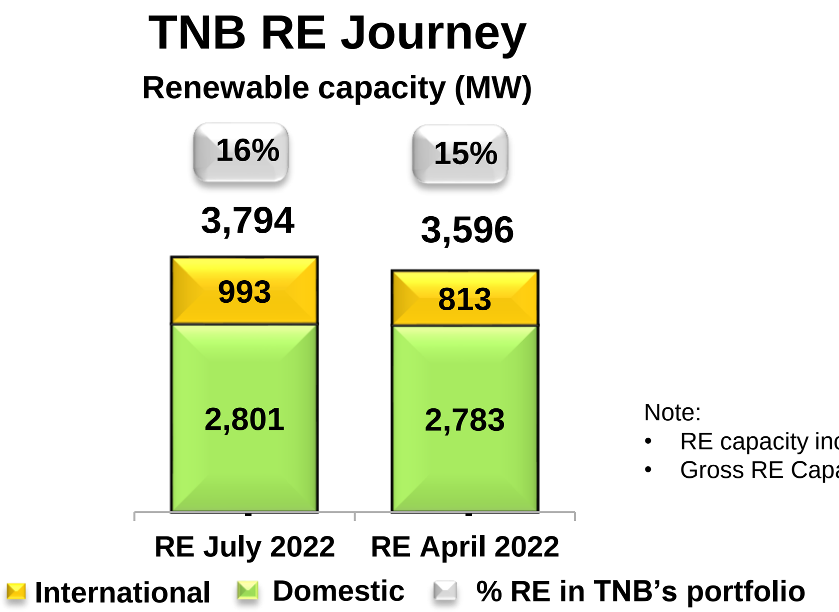


- Higher EBITDA YoY due to the full consolidation of Kamalanga’s financial results upon the recognition of Kamalanga as a subsidiary (GEL previously recognised Kamalanga’s share of profits only).

Outlook for GEL:

- Peak demand jumped to a record 210.8GW in June 2022 due to soaring temperatures and rising industrial activities, pressuring domestic coal supply. The Power Ministry expects demand to peak in August to September 2022 monsoon thus, pushing power plants to import coal.
- Total of 76MT coal to be imported by state Gencos and independent power producers preparing for this period. Both Warora and Kamalanga are under negotiation for issuance of Letter of Intent (“LOI”) to import coal.
- 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”.

Our RE journey is progressing well



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

Recent RE Progress

1) Domestic renewables

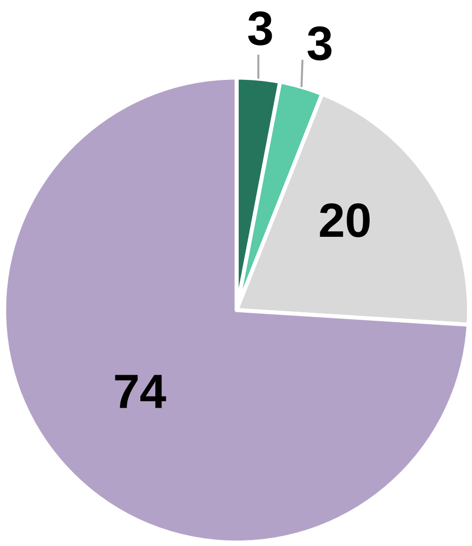
- We have signed a 30-year power purchase agreement for the 300MW Nenggiri hydro plant which is expected to commence on 1 June 2027. The construction works have started since 1 March 2022.
- GSPARX has successfully secured a total capacity of 146.2MW as of Jul 2022. (December 2021 : secured 116.3MW)
- Successfully commissioned a mini hydro of 4.0MW in Sungai Tersat, Kuala Berang in December 2021.

2) UK / Europe renewables

- 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.

Ensuring revenue from coal remains below 25%, towards longer-term aspiration

Actual Group Revenue 1HFY22 (%)



RE

Related to Energy Transition (ET)

Coal

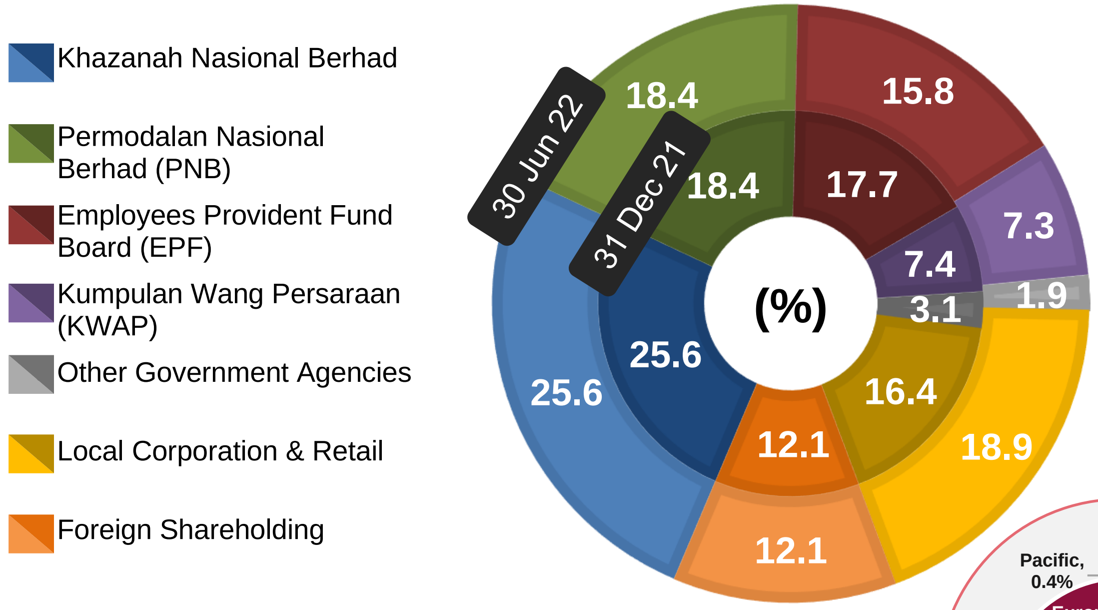
Others*

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

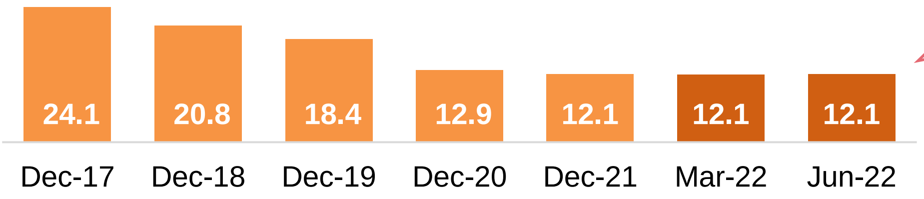
Long-term aspiration : aims to be coal-free by 2050

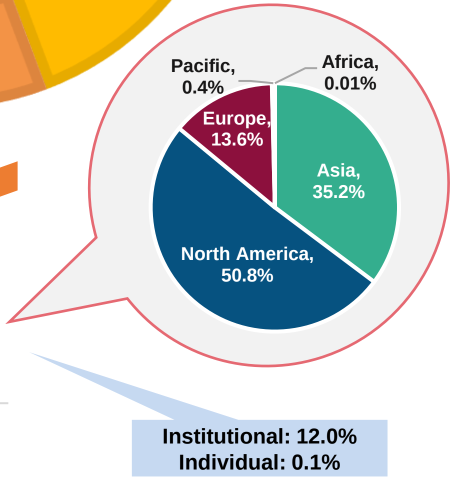
- No new coal plant investment in the pipeline
- Reduction of coal capacity by 50% by 2035 & coal-free by 2050

TNB market capitalisation of RM45.7 bil as at 30 June 2022

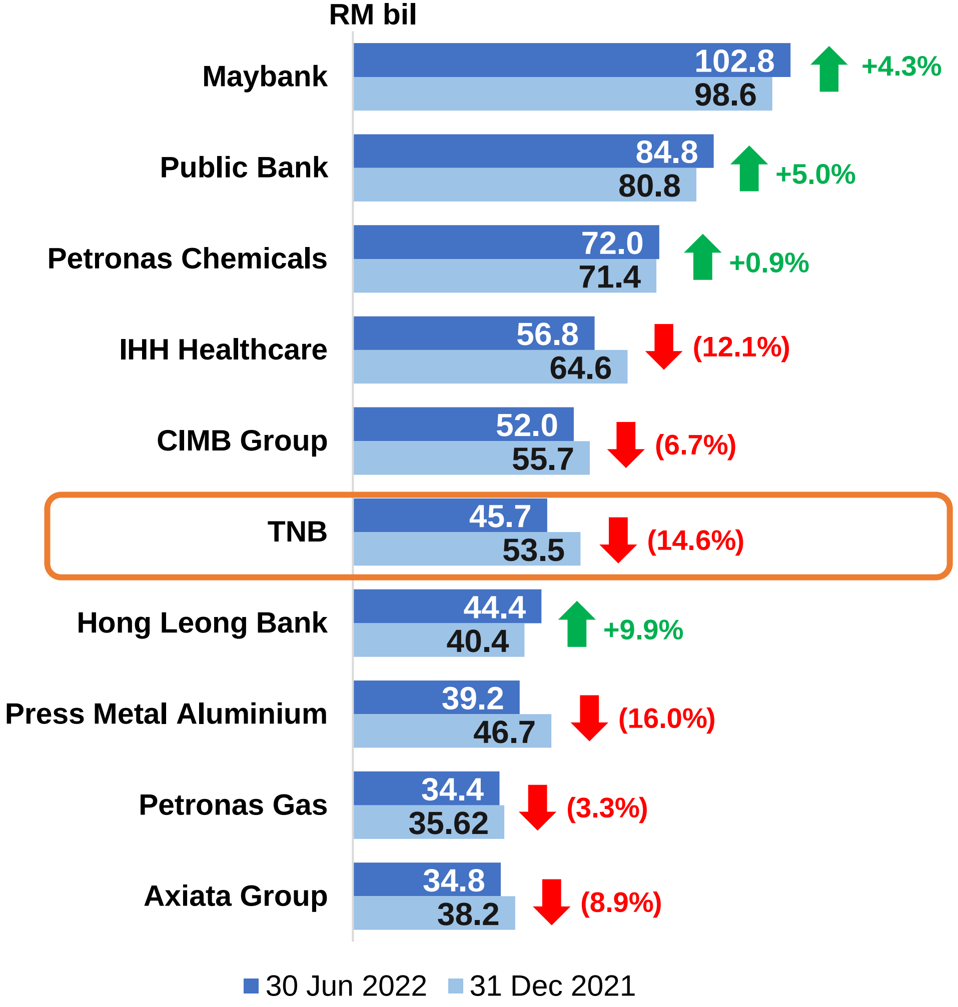


Foreign Shareholding (%)





Top 10 KLCI Stocks by Market Capitalisation



Note:
1. Top 10 KLCI ranking by Market Capitalisation as at 30 Jun 2022
2. TNB Latest Market Cap: RM50.6 bil (6th), as at 26 Aug 2022

Source: Share Registrar, Bloomberg and IR Internal Analysis

Disclaimer

This presentation and discussion may contain forward looking statements by Tenaga Nasional Berhad related to financial trends for future periods. Some of the statements contained in this presentation or arising from this discussion which are not of historical facts are statements of future expectations with respect to financial conditions, results of operations and businesses, and related plans and objectives. Such forward looking statements are based on Tenaga Nasional Berhad’s current views and assumptions including, but not limited to, prevailing economic and market conditions and currently available information. These statements involve known and unknown risks and uncertainties that could cause actual results, performance or achievements to differ materially from those in the forward-looking statements. Such statements are not and, should not be construed, as a representation as to future performance or achievements of Tenaga Nasional Berhad. It should be noted that the actual performance or achievements of Tenaga Nasional Berhad may vary significantly from such statements.

THANK YOU

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