

Key Highlights: Fair performance and prudent capital management sustained amidst challenging times



1

9MFY22 Performance

- a) Sustained resilient financial performance
- Solid technical operations contributed by generation performance and world-class network standard

2



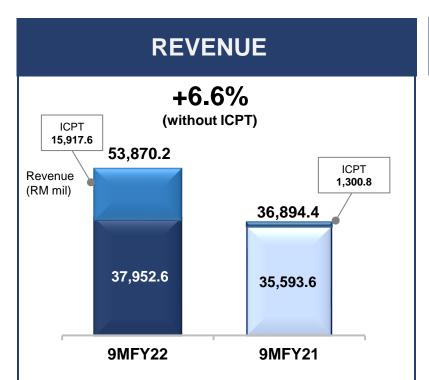
Prudent Capital Management

- a) Timely ICPT cost recovery and utilisation of Government guaranteed funding in managing high fuel prices
- b) Improved average collection rate

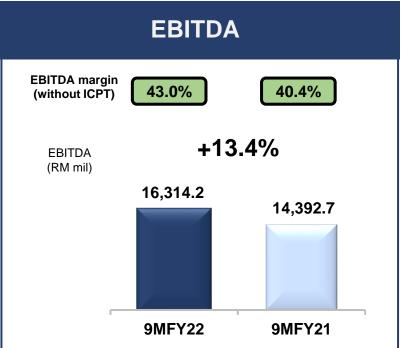


Fair 9MFY22 financial performance supported by the higher Group electricity demand of 7.2% year-on-year, in line with Malaysia economic growth



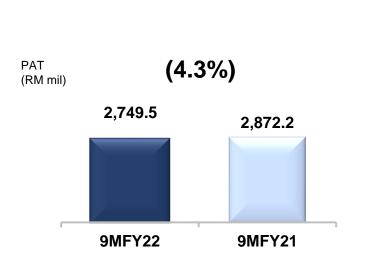


- Increase in TNB sales of electricity, driven by higher consumption in all sectors especially from commercial sector (+19.2% year-onyear), consistent with the overall improvement of Malaysia's GDP of 9.3% year-on-year.
- Peninsula Malaysia electricity demand grew by 8.1% year-on-year.



- Driven by higher Group electricity revenue and lower Allowance for Doubtful Debts (ADD 9MFY22: RM105.0 mil, 9MFY21: RM581.2 mil).
- EBITDA margin (without ICPT) has improved to 43.0% from 40.4% as compared to the same period last year reflecting improvement in our performance.

PROFIT AFTER TAX



- PAT impacted by:
 - i. Net forex loss of RM584.3 mil in 9MFY22 due to the weakening of MYR against USD.
 - ii. Higher finance cost mainly from MFRS16 adjustment from Edra Melaka power plant (RM234.4 mil).
 - iii. Higher tax expense was attributable to lower capital allowances as at 9MFY22 and deferred tax. Impact from slower asset build up will be normalised by Dec'22.

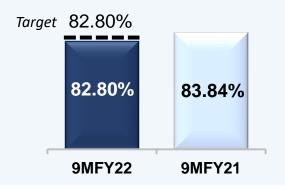


Solid generation and world-class network performance support our Group earnings





Equivalent Plant Availability Factor, EAF (Generation) %





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









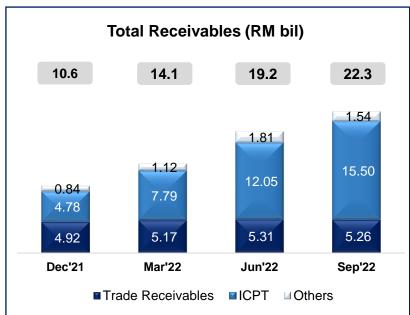


World class network performance safeguarded our regulated business earnings

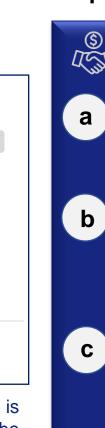


The Government has honoured ICPT cost recovery and provided guarantee to support TNB's working capital. We continue to be prudent and proactive in our capital management.





- Amid the high fuel cost, ICPT receivables is high due to the timing mismatch between the upfront payment made by TNB and recovery of the surcharges via the ICPT framework.
- TNB is recovering the cost of working capital through ICPT and managing cash flow proactively.



ICPT Cost Recovery Efforts

ICPT Cost Recovery

RM4.8 bil

Received for period July to November 2022 Total RM5.8 billion claimed for July to December 2022

Expected ICPT amount January to June 2023

 $\sim RM16.4$ bil

- Submitted proposal to EC in September 2022 and ongoing discussions with the regulator, including proposing possible options for the pass-through implementation.
- · TNB is to remain neutral.
- **Government Guarantee**



RM6.0 bil

- · The Government has provided Government guarantee of RM6.0 billion to support TNB's working capital
- Status: Received approval from the MoF* on the principle terms and conditions of the Government guarantee



> 100%

since March 2022

Contributed to improvement in trade receivables level



*MoF - Ministry of Finance

TENAGA NASIONAL Better. Brighter.

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

ELECTRICITY DEMAND

Stronger demand growth, outperforming the 1.7% growth (115,835 GWh) in IBR

DELIVERING VALUE TO OUR SHAREHOLDERS

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



GROUP CAPEX FORECAST

Total Group CAPEX:

RM11.8 bil

❖ Regulated capex : RM7.2 bil

❖ Others* : RM4.6 bil

* Major projects, subsidiaries and corporate

SUSTAINABLE GROWTH

TNB will continuously deliver value to shareholders and ensuring business growth as we progress towards being a leading provider of sustainable energy solutions



Key Highlights: Sustainability journey toward 2050 Net Zero Aspiration continue to progress well



3



Sustainable Growth

Committed in delivering value to shareholders while aspiring to be a **leading provider of sustainable energy solutions** through progress in our strategic pillars:

- a) Future Generation Sources
- b) Grid of the Future
- c) Winning the Customer

Future Generation Sources

Sustainable capacity expansion through healthy pipeline of projects ensure business growth while supporting the Group's decarbonisation



	agenda	COD	Emission Avoidance (Equivalent to CO2 emission)
TNB Bukit Selambau 2 (Large Scale Solar 4 scheme) 50 MW	 In view of high PV panel price, Energy Commission has approved the extension of PPA tenure from 21 to 25 years for all LSS4 operators in August 2022; ensuring commercial viability of projects. The project has achieved financial close on 30 September 2022. Commencement of work has started since September 2022. 	2023	0.08 million tCO2-e/ year (~17,000 cars/year)
Sungai Perak Hydro Life Extension Programme 650.75 MW	 Uprate and upgrade the Sungai Perak Hydroelectric Scheme which consists of Stesen Janaelektrik (SJ) Temengor, SJ Bersia, SJ Kenering, SJ Chenderoh and SJ Sungai Piah with eighteen (18) generating units. with the latest technology. The project will commence in Q3 of year 2024. 	Q3 2025	0.5 million tCO2-e/ year (~100,000 cars/year)
Nenggiri Hydro Project 300 MW	 Commencement of work has started since 1 March 2022. The project has achieved financial close on 8 July 2022, approved under the sustainable Sukuk Framework with "Gold" rating assigned by MARC. Sukuk programme up to RM10 bil, first issuance of RM1.5 bil over-subscribed by 3.41x. 	Q2 2027	0.3 million tCO2-e/ year (~70,000 cars/year)
Paka Repowering 1,400 MW	 Brownfield project to repower the retired SJSI PAKA using highly efficient CCGT with hydrogen ready technology by 2030. This project serves as a unique pioneering project in deploying green technologies that may be utilised in future power plants. 	2030	3.2 million tCO2-e/ year (~700,000 cars/year)
New Combined Cycle Power Plant, Kapar 2,100 MW	Greenfield project that is marked for combined cycle gas-fired plant with hydrogen-fired combustion capability; replacing KEV coal capacity and supplying cleaner electricity.	2031	4.7 million tCO2-e/ year (~1,000,000 cars/year)
Solar greenfield development, UK 102 MW	 Greenfield project with option to develop co-located battery energy storage systems. This project offers opportunities for environmental initiatives, supporting TNB's wider biodiversity agenda. 	2024 (estimate)	0.05 million tCO2-e/ year (~10,000 cars/year)

Future Generation Sources

Genco continues to build value through pipeline of projects starting with the hydro LEP in 2025, ensuring sustainable revenue flow



2025

Sungai Perak Hydro Life Extension Programme (LEP)

~RM5.8 bil (PPA: 40 years) Received Letter of Award (LOA) 2029

Paka Repowering

~RM6.3 bil Received Letter of Intent (LOI)

Pipeline of Genco's Projects (COD) & Estimated Project Cost





Nenggiri Hydro Project

~RM5 bil (PPA: 30 years) Development stage 2031

New CCPP Kapar

~RM9.5 bil

Received Letter of Intent (LOI)



Grid of the Future

Our continuous investment in grid modernisation will spur regional interconnection expansion while further strengthen our position in the Energy Transition space



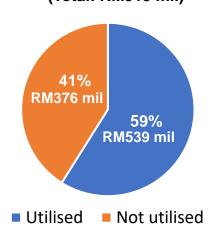
RP3 Approved CAPEX

13% (RM2.54 bil)

Supporting the Energy Transition (ET) and RAB growth

Progress as of September 2022:

2022 ET related CAPEX (Total: RM915 mil)



Key Projects:



Smart Meter Installation progress:

98% Target of 2.4 mil units installed by end 2022



LED Relamping Installation progress:

75% Target of 0.7 mil units by end 2022



Volt-Var Optimisation (VVO) progress:

91% Target of 700 MVAR by end

Towards becoming a Smart Utility by 2025

85%

TNB Smart Grid Index (SGI) target by 2025

2021 SGI: 67.9%

Regional interconnections

Benefits of regional interconnection:

- Support Genco expansion plan in regional countries as it aims to explore hydro and gas opportunities in ASEAN.
- b) Provide access to RE capacities from neighbouring countries by enabling more offtakers to purchase power across ASEAN.
- c) Strengthen grid security of supply.

Key development:

Malaysia – Singapore interconnection

- In October 2022, Malaysia and Singapore have completed the upgrading of the electricity interconnector between both countries to enable mutual energy transfer in times of power outage.
- ii. The interconnector can now accommodate bidirectional electricity flows of around 1,000 megawatts between Malaysia and Singapore.



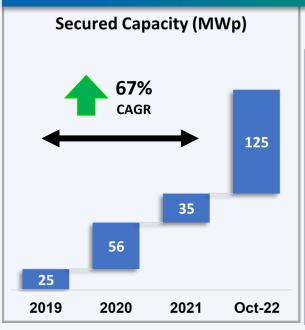
Winning the Customer

We continue to win customers trust, evidenced through robust growth seen in GSPARX and exciting developments in the Electric Vehicle (EV) space



GSPARX

GSPARX is committed in generating new revenue stream to the Group as an established preferred choice for one-stop rooftop solar solutions in the country



Key developments

MoU with SP Setia

 GSPARX to install 10MW of solar panels at SP Setia HQ building with additional capacity expected at 6 other commercial assets.

Collaboration with Sime Darby Property (SDP)

- GSPARX has completed solar installation for 508 units at Elmina F4 Shah Alam.
- GSPARX is actively engaging SDP to expand this collaboration.

Collaboration with AEON

 Solar installation at 40 sites (AEON mall & AEON Big), 78MWp.



241 MWp

Secured Capacity as of Oct 2022

36MWp Pipeline Projects

(Government buildings, universities, commercial & industrial segments)



319 MWp

Targeted Capacity by 2025

EV (Charging Infrastructure & Platform)

TNB aims to accelerate the development of EV ecosystem with projection of 500k BEVs by 2030, uplifting the demand side by approximately 2.318 TWh (RM1.26 billion)

Key developments



MoU with Gamuda Land

 To build the nation's first solar-powered electron stations for electric vehicle (EV) at Gamuda Cove and Gamuda Gardens in Klang Valley with a host of services such as food and beverage outlets and convenience stores.

MoU with PLUS

 To set up fast charging points with PLUS Malaysia by leveraging its strategically located Rest & Recreation (R&R) areas along the major highways.

TNB initiates ~RM90 mil investment over the span of 3 years to uplift the EV development and ecosystem in Malaysia

- a) Build Electron Hubs along high volume traffic highways
- b) Build Direct Current Fast Chargers (DCFCs) along highways and trunk roads
- Build Destination Charges in TNB premises across Peninsular Malaysia for public usage



To support the nation's aspiration of having 10,000 charging stations by 2025

(Current: ~700 installed)



Appendix

3Q FY2022

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

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

RM mil	
Revenue	1
Operating expenses (without depreciation)	2
Net loss on impairment of financial instruments	3
Other operating income	
EBITDA	
EBITDA Margin (%)	
EBITDA Margin w/o ICPT (%)	
Depreciation	4
EBIT	
Foreign exchange:	
- Transaction gain/(loss)	
- Translation (loss)/gain	5
Share of results of joint ventures	
Share of results of associates	
Profit before finance cost	
Fair value changes of financial instrument	
Finance income	
Finance cost	4
Profit from ordinary activities before taxation	
Taxation and Zakat:	
- Company and subsidiaries	
- Deferred taxation	6
Profit for the period	
Attributable to:	
- Owners of the Company	
- Non-controlling interests	
Profit for the period	

OMEVOS	OMEV21	Variance				
9MFY22	9MFY21	RM mil	%			
53,870.2	36,894.4	16,975.8	46.0			
(38,104.5)	(22,143.2)	(15,961.3)	72.1			
(128.3)	(906.9)	778.6	(85.9)			
676.8	548.4	128.4	23.4			
16,314.2	14,392.7	1,921.5	13.4			
30.3%	39.0%	-	(8.7)			
43.0%	40.4%	-	2.6			
(8,404.7)	(7,882.7)	(522.0)	6.6			
7,909.5	6,510.0	1,399.5	21.5			
24.0	(27.9)	51.9	>(100.0)			
(608.3)	(162.4)	(445.9)	>100.0			
19.0	17.4	1.6	9.2			
83.5	103.6	(20.1)	(19.4)			
7,427.7	6,440.7	987.0	15.3			
125.1	147.5	(22.4)	(15.2)			
179.9	159.7	20.2	12.6			
(3,200.8)	(2,831.6)	(369.2)	13.0			
4,531.9	3,916.3	615.6	15.7			
(1,661.1)	(1,128.6)	(532.5)	47.2			
(121.3)	84.5	(205.8)	>(100.0)			
2,749.5	2,872.2	(122.7)	(4.3)			
2,654.2	2,784.0	(129.8)	(4.7)			
95.3	88.2	7.1	8.0			
2,749.5	2,872.2	(122.7)	(4.3)			

Y-o-Y analysis:

- 1 Higher revenue mainly due to ICPT surcharge of RM15,917.6 mil (9MFY21 surcharge of RM1,300.8 mil) and higher sales of electricity.
- 2 Higher operating expenses driven by higher generation cost.
- Includes lower Allowance for doubtful debts (ADD) of RM105.0 mil (9MFY21 RM581.2 mil).
- Higher depreciation and finance cost mainly due to MFRS16 adjustment for EDRA Melaka power plant.
- Higher loss in forex translation mainly due to the weakening of MYR against USD.
- 6 Higher tax expense was attributable to slower asset build up as at 9MFY22 and deferred tax.

Quarter vs Previous Quarter (3QFY22 vs 2QFY22) analysis

RM mil
Revenue
Operating expenses (without depreciation)
Net loss on impairment of financial instruments
Other operating income
EBITDA
EBITDA Margin (%)
EBITDA Margin w/o ICPT (%)
Depreciation
EBIT
Foreign exchange:
- Transaction gain/(loss)
- Translation (loss)/gain
Share of results of joint ventures
Share of results of associates
Profit before finance cost
Fair value changes of financial instrument
Finance income
Finance cost
Profit from ordinary activities before taxation
Taxation and Zakat:
- Company and subsidiaries
- Deferred taxation
Profit for the period
Attributable to:
- Owners of the Company
- Non-controlling interests
Profit for the period

	3QFY22	2QFY22	Variance					
	3QF122	2QF122	RM mil	%				
	19,071.4	19,140.3	(68.9)	(0.4)				
	(13,533.1)	(13,907.8)	374.7	(2.7)				
	(48.1)	(44.5)	(3.6)	8.1				
	247.1	251.1	(4.0)	(1.6)				
	5,737.3	5,439.1	298.2	5.5				
	30.1%	28.4%	-	1.7%				
	44.3%	42.4%		1.9%				
	(2,825.7)	(2,810.8)	(14.9)	0.5				
	2,911.6	2,628.3	283.3	10.8				
	13.1	10.6	2.5	23.6				
2	(413.8)	(237.2)	(176.6)	74.5				
	8.2	4.8	3.4	70.8				
	23.2	30.3	(7.1)	(23.4)				
	2,542.3	2,436.8	105.5	4.3				
	66.4	18.5	47.9	>100.0				
	57.4	76.3	(18.9)	(24.8)				
	(1,131.9)	(1,065.9)	(66.0)	6.2				
	1,534.2	1,465.7	68.5	4.7				
	(515.3)	(615.9)	100.6	(16.3)				
	(46.2)	55.8	(102.0)	>(100.0)				
	972.7	905.6	67.1	7.4				
	888.9	872.2	16.7	1.9				
	83.8	33.4	50.4	>100.0				
	972.7	905.6	67.1	7.4				

Q vs Previous Quarter analysis:

- 1 Lower OPEX mainly due to lower generation cost.
- 2 Higher loss in forex translation mainly due to the weakening of MYR against USD.

Y-o-Y normalised EBITDA & PAT for 9MFY22

EBITDA		9MFY22	9MFY21
Components		RM mil	RM mil
Reported EBITDA		16,314.2	14,392.7
Impairment		-	455.8
Additional ADD for TNB*		62.2	431.0
MFRS16 impact	1	(3,328.0)	(3,149.2)
Normalised EBITDA		13,048.4	12,130.3

PAT		9MFY22	9MFY21
Components		RM mil	RM mil
Reported PAT		2,749.5	2,872.2
Impairment		-	455.8
Additional ADD for TNB*		62.2	431.0
Forex Translation		608.3	162.4
MFRS16 impact	1	700.5	434.2
Normalised PAT	2	4,120.5	4,355.6

^{*}ADD 9MFY22: RM105.0mil, approved ADD FY22: RM 57.1mil ADD 9MFY21: RM581.2 mil, approved ADD FY21: RM200.3 mil

- Please refer MFRS16 impact slide for details.
- Lower normalised PAT in 9MFY22 mainly due to higher tax expense resulting from slower asset build up.

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

	3QFY2	2	2QFY2	2	(30	Varian QFY22 vs 2		9MFY2	2	9MFY	21		Variar 9MFY22 vs	
UNITS SOLD	GWh		GWh			GWh	%	GWh		GWh			GWh	%
Sales of Electricity (GWh)														
- TNB	30,347.5		30,159.7		1	187.8	0.6	89,466.5		82,738.7		1	6,727.8	8.1
- SESB	1,472.3		1,445.2			27.1	1.9	4,301.8		3,976.4			325.4	8.2
- EGAT (Export)	-		0.1			(0.1)	(100.0)	0.3		1.2			(0.9)	(75.0)
- LPL	-		-			-	-	-		878.8		2	(878.8)	(100.0)
- TNBI (UK Wind)	14.3		18.0			(3.7)	(20.6)	58.8		49.5			9.3	18.8
- TNBI (Vortex)	126.7		142.1		3	(15.4)	(10.8)	327.1		305.1		3	22.0	7.2
- TNBI (CEI UK LTD)	42.2		52.9		4	(10.7)	(20.2)	95.1		-		4	95.1	100.0
Total Units Sold (GWh)	32,003.0		31,818.0			185.0	0.6	94,249.6		87,949.7			6,299.9	7.2
REVENUE	RM mil	Sen/ kWh	RM mil	Sen/ kWh	(R	M mil)	%	RM mil	Sen/ kWh	RM mil	Sen/ kWh		(RM mil)	%
Sales of Electricity (RM)														
- TNB	12,194.6	40.07	12,210.3	40.24		(15.7)	(0.1)	35,692.8	40.14	33,100.4	39.95		2,592.4	7.8
- Sales Discount	-		-			-	-	-		(460.0)			460.0	(100.0)
- SESB	504.5	34.26	497.2	33.93		7.3	1.5	1,470.0	34.29	1,375.5	34.40		94.5	6.9
- Sales Discount	-		-			-	-	-		(0.6)			0.6	(100.0)
- Accrued Revenue	(34.7)		(81.0)			46.3	(57.2)	37.3		(50.0)			87.3	>(100.0)
- EGAT (Export)	0.1	-	-	-		0.1	100.0	0.4	-	0.3	-		0.1	33.3
- LPL	-		-			-	-	-	-	290.0	33.00		(290.0)	(100.0)
- TNBI (UK Wind)	21.1	147.55	25.4	141.11		(4.3)	(16.9)	83.6	142.18	70.1	141.62		13.5	19.3
- TNBI (Vortex)	97.1	76.64	110.3	77.62		(13.2)	(12.0)	254.1	77.68	231.3	75.81		22.8	9.9
- TNBI (CEI UK LTD)	31.4	74.41	37.6	71.08		(6.2)	(16.5)	69.0	72.56	-	-		69.0	>100.0
Sales of Electricity	12,814.1	40.04	12,799.8	40.23		14.3	0.1	37,607.2	39.90	34,557.0	39.29		3,050.2	8.8
Imbalance Cost Pass Through	6,109.6		6,302.6			(193.0)	(3.1)	15,917.6		1,300.8			14,616.8	>100.0
Other Regulatory Adjustment	(228.0)		(294.7)		5	66.7	(22.6)	(679.4)		(265.9)		5	(413.5)	>100.0
Relief Package from Government	-		-			-	-	0.6		406.1			(405.5)	(99.9)
SESB Tariff Support Subsidy	67.6		68.2			(0.6)	(0.9)	199.7		274.4			(74.7)	(27.2)
Others	-		-			- (440.0)	- (2.0)	-		(55.3)			55.3	(100.0)
Total Sales of Electricity	18,763.3		18,875.9			(112.6)	(0.6)	53,045.7		36,217.1		6	16,828.6	46.5
Goods & Services	201.3		165.2			36.1	21.9	514.5		443.8			70.7	15.9
Construction contracts	38.6		29.8			8.8	29.5	105.9		45.9			60.0	>100.0
Customers' Contribution	68.2		69.4			(1.2)	(1.7)	204.1		187.6			16.5	8.8 46.0
Total Revenue	19,071.4		19,140.3			(68.9)	(0.4)	53,870.2		36,894.4			16,975.8	46.0

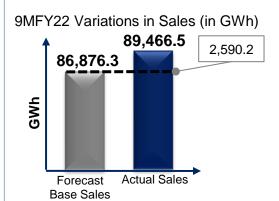
- 3QFY22 vs 2QFY22: Higher units sold and sales of electricity mainly from commercial and industrial sectors.
 - 9MFY22 vs 9MFY21: Higher units sold and sales of electricity from all sectors.
- Divestment of LPL on 30 Nov'21.
- 3 3QFY22 vs 2QFY22: Lower solar generation due to seasonality factor (approaching winter season).
 - 9MFY22 vs 9MFY21: Higher generation mainly due to higher irradiance.
- 3QFY22 vs 2QFY22: Lower generation from offshore wind due to seasonality factor (lower wind speed).
 - 9MFY22 vs 9MFY21: Acquisition of 97.3MW onshore wind portfolio (UK) in April 2022.
- Refer Other Regulatory Adjustment slide
- 9MFY22 vs 9MFY21: Higher mainly due to improved subsidiaries performance driven by stronger economic growth.

As at 9MFY22, RM679.4 mil of other regulatory adjustment to be returned

Components of Other Regulatory Adjustment	1QFY22	2QFY22	3QFY22	9MFY22
Components of Other Regulatory Adjustinent	(RM mil)	(RM mil)	(RM mil)	(RM mil)
1 Revenue Adjustment for Revenue Cap & Price Cap	(44.2)	(239.4)	(211.8)	(495.4)
Refund Related to Regulated Business	(113.1)	(63.9)	(16.6)	(193.6)
Regulatory Adjustment for SESB*	0.6	8.6	0.4	9.6
TOTAL	(156.7)	(294.7)	(228.0)	(679.4)

^{*}SESB has implemented IBR framew ork starting 1 January 2022

Revenue Cap

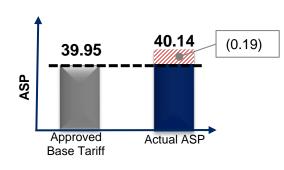


- The allowed annual revenue for revenue cap entities is based on 1.7% demand growth. Any excess/shortfall is adjusted through revenue adjustment mechanism.
- For 9MFY22, higher actual sales has led to amount to be returned via revenue adjustment mechanism.

Business Entities	Allowed Tariff (sen/kWh)	Variations in Sales (GWh)	Adjustment (RM mil)
Revenue Cap Entities	12.60	2,590.2	(325.9)*

Price Cap

9MFY22 Variations in ASP (sen/kWh)

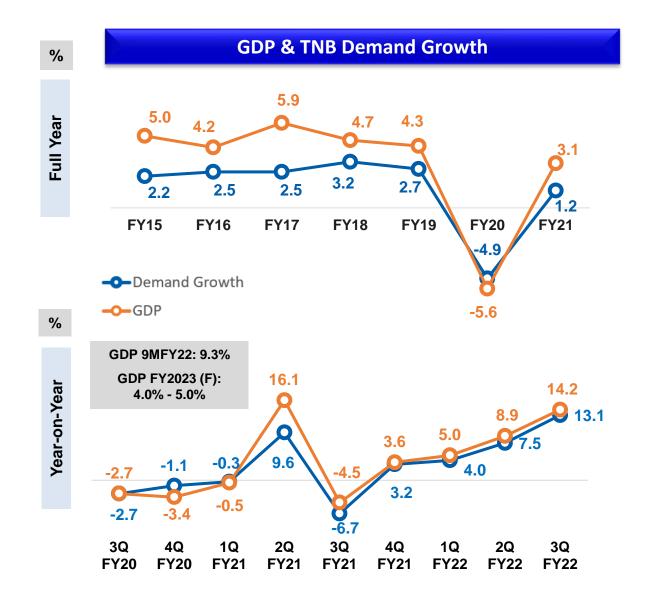


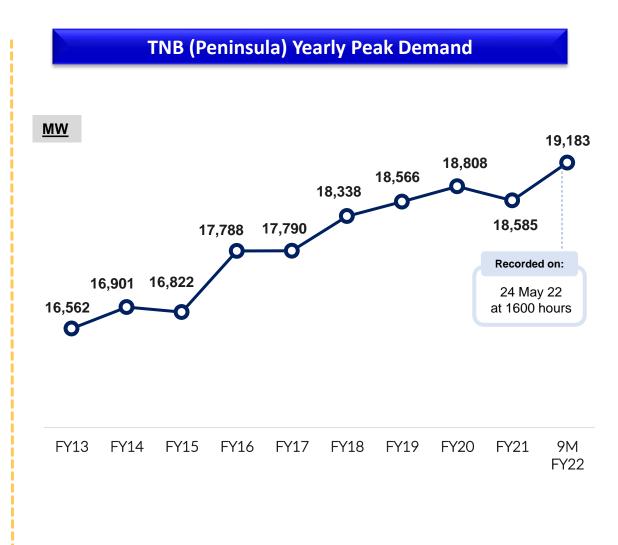
- Any excess/shortfall of revenue earned due to higher/lower Average Selling Price (ASP) compared to Base Tariff is adjusted through revenue adjustment mechanism.
- For 9MFY22, the ASP recorded was higher than the Base Tariff, leading to amount to be returned via revenue adjustment mechanism.

Business Entities	Actual Sales (GWh)	Variations in ASP (sen/kWh)	Adjustment (RM mil)		
Price Cap Entity	89,466.5	(0.19)	(169.5)*		

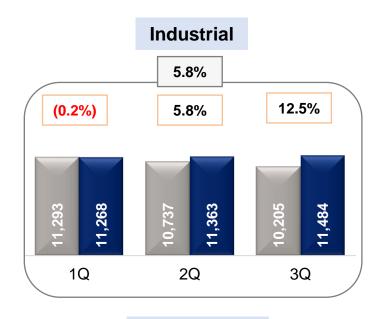
^{*} Numbers manually computed will not match due to decimal variance

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





Improved Y-o-Y electricity demand across all sectors



9MFY22 main contributors for the increase in:

Industrial sector

· Misc. consumer product, wood and cement products

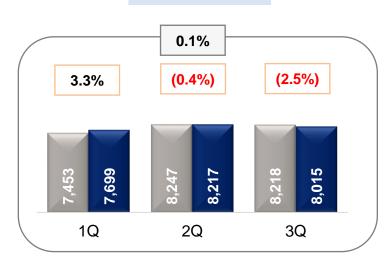
Commercial sector

· Retails, accommodation and business services

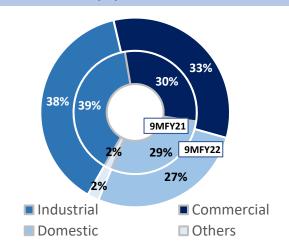


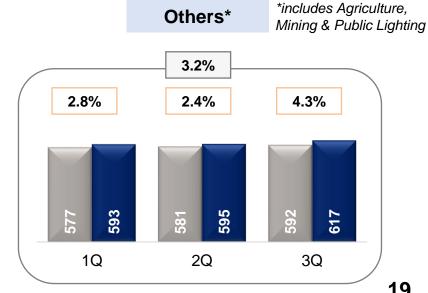
Commercial 19.2% 10.2% 30.9% 17.6% 10,232 9,399 8,530 8,490 9,985 817 1Q 2Q 3Q

Domestic



Sector Mix (%) 9MFY22 vs 9MFY21





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

	3QFY22	2QFY22	Variance (3QFY22 vs 2QFY22)				9MFY22 9MFY21		Variance (9MFY22 vs 9MFY21)	
	(RM mil)	(RM mil)	RM mil	%	(RM mil)	(RM mil)	RM mil	%		
Non-TNB IPPs Costs	5,337.5	4,123.7	1,213.8	29.4	12,901.8	5,620.4	7,281.4	>100.0		
Capacity Payment	(81.7)	(89.2)	7.5	(8.4)	(270.1)	147.6	(417.7)	>(100.0)		
Energy Payment	5,419.2	4,212.9	1,206.3	28.6	13,171.9	5,472.8	7,699.1	>100.0		
TNB Fuel Costs	5,692.0	7,510.9	(1,818.9)	(24.2)	18,129.4	9,720.3	8,409.1	86.5		
Fuel Costs	5,280.6	4,670.9	609.7	13.1	13,992.4	7,651.9	6,340.5	82.9		
Fuel Price Adjustment	485.9	3,096.4	(2,610.5)	(84.3)	4,589.9	2,271.0	2,318.9	>100.0		
Fuel Subsidy - SESB	(74.5)	(256.4)	181.9	(70.9)	(452.9)	(202.6)	(250.3)	>100.0		
Total Cost of Generation	11,029.5	11,634.6	(605.1)	(5.2)	1 31,031.2	15,340.7	15,690.5	>100.0		
Staff Costs	950.8	946.5	4.3	0.5	2,822.7	2,851.1	(28.4)	(1.0)		
Repair & Maintenance	2 792.4	539.8	252.6	46.8	1,807.3	1,410.0	397.3	28.2		
TNB General Expenses	368.6	367.9	0.7	0.2	1,178.6	1,096.1	82.5	7.5		
Subs. General Expenses	391.8	419.0	(27.2)	(6.5)	1,264.7	1,445.3	(180.6)	(12.5)		
Total Non-Generation Cost	2,503.6	2,273.2	230.4	10.1	7,073.3	6,802.5	270.8	4.0		
Total Operating Expenses (without Depreciation)	13,533.1	13,907.8	(374.7)	(2.7)	38,104.5	22,143.2	15,961.3	72.1		
Depreciation & Amortisation	2,825.7	2,810.8	14.9	0.5	8,404.7	7,882.7	522.0	6.6		
Total Operating Expenses	16,358.8	16,718.6	(359.8)	(2.2)	46,509.2	30,025.9	16,483.3	54.9		

3QFY22 vs 2QFY22: Lower generation cost due to higher generation from hydro plants.

9MFY22 vs 9MFY21: Higher generation cost mainly due to higher coal prices (USD209.7/MT vs USD97.8/MT).

- 3QFY22 vs 2QFY22, 9MFY22 vs 9MFY21: Higher expenses driven by more R&M activities.
- 9MFY22 vs 9MFY21: Higher depreciation mainly due to MFRS16 adjustment for EDRA Melaka power plant.

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

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

Fuel Type	9MFY22	9MFY21	Variance		
Fuel Type	SIVIF 122	SIVIF 121	RM mil	%	
Coal	20,810.4	9,485.8	11,324.6	>100.0	
Gas	7,962.0	3,998.2	3,963.8	>100.0	
Distillate	546.1	55.0	491.1	>100.0	
Oil	105.1	1.3	103.8	>100.0	
Total	29,423.6	13,540.3	15,883.3	>100.0	

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

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

Fuel Type	9MFY22		9MFY21		Variance	
ruerrype	GWh	Gen. Mix	GWh	Gen. Mix	GWh	%
Coal	55,227.1	56.2%	55,413.6	59.7%	(186.5)	(0.3)
Gas & LNG	36,697.8	37.3%	31,309.8	33.7%	5,388.0	17.2
Distillate	479.9	0.5%	47.0	0.1%	432.9	>100.0
Oil	2.7	0.0%	31.0	0.0%	(28.3)	(91.3)
Hydro	4,773.7	4.9%	5,132.3	5.5%	(358.6)	(7.0)
Solar	1,153.5	1.2%	854.4	0.9%	299.1	35.0
Total	98,334.7	100.0%	92,788.1	100.0%	5,546.6	6.0

Table C - Fuel Costs Related Data

Fuel statistics	9MFY22	9MFY21
Average Coal Price Delivered (USD/MT)(CIF)	209.7	97.8
Average Coal Price Delivered (RM/MT)(CIF)	910.5	403.5
Coal Consumption (mil MT)	24.1	24.0
Gas Reference Market Price (RM/mmbtu)	1QFY22 Tier 1:30.0 Tier 2:36.9 2QFY22 Tier 1:30.0 Tier 2:38.2 3QFY22 Tier 1:30.0 Tier 2:43.4	1QFY21 : 15.4 2QFY21 : 18.9 3QFY21 : 21.4
Daily Average Piped Gas Volume (mmscfd)	893	778

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

	9MFY22	9MFY21	Variance		
	SIVIF 122	SIVIF 121	USD	%	
FOB	195.9	86.8	109.1	>100.0	
Freight	13.3	10.5	2.9	27.3	
Others	0.5	0.5	(0.0)	(6.1)	
CIF	209.7	97.8	111.9	>100.0	

Lower 3Q vs 2Q fuel costs due to higher generation from hydro plants

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

Fuel Type	3QFY22	2QFY22	1QFY22	Variance 30	Q vs 2Q
Fuel Type	JQF1ZZ	ZQF1ZZ	IQFIZZ	RM mil	%
Coal	7,418.2	8,410.4	4,981.8	(992.2)	(11.8)
Gas	2,820.5	2,619.6	2,521.9	200.9	7.7
Distillate	36.9	94.7	414.5	(57.8)	(61.0)
Oil	105.1	-	0.0	105.1	100.0
Total	10,380.7	11,124.7	7,918.2	(744.0)	(6.7)

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

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

Fuel Type	3QFY2	2	2QFY2	2	1QFY2	2	Variance 3	Q vs 2Q
	GWh	Gen. Mix	GWh	Gen. Mix	GWh	Gen. Mix	GWh	%
Coal	18,830.2	56.5%	19,164.8	57.8%	17,232.1	54.1%	(334.6)	(1.7)
Gas & LNG	11,935.7	35.8%	12,309.8	37.1%	12,452.3	39.1%	(374.1)	(3.0)
Distillate	3.6	0.0%	137.1	0.4%	339.2	1.1%	(133.5)	(97.4)
Oil	2.7	0.0%	-	0.0%	-	0.0%	2.7	100.0
Hydro	2,095.6	6.3%	1,134.7	3.4%	1,543.4	4.8%	960.9	84.7
Solar	450.0	1.4%	401.5	1.2%	302.0	0.9%	48.5	12.1
Total	33,317.8	100.0%	33,147.9	100.0%	31,869.0	100.0%	169.9	0.5

Table C - Fuel Costs Related Data

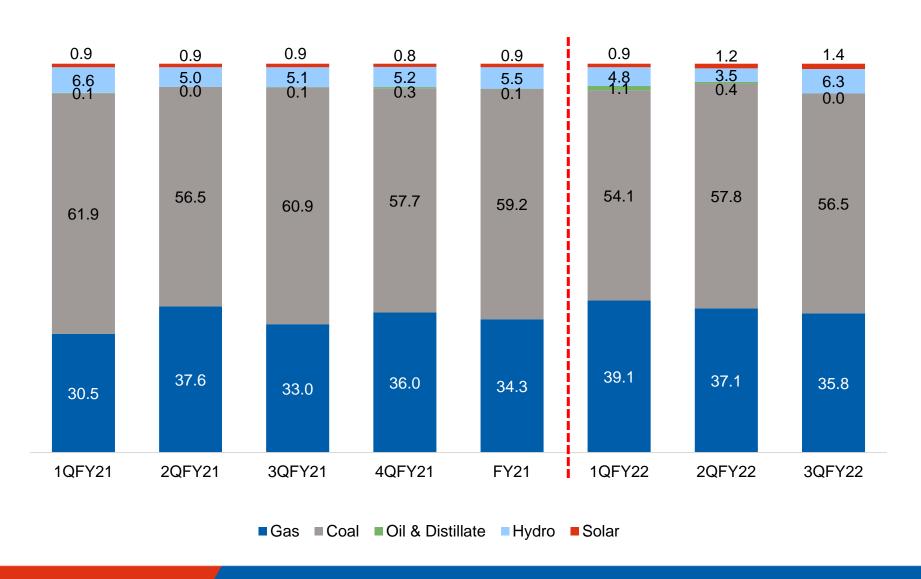
Fuel statistics	3QFY22	2QFY22	1QFY22
Average Coal Price Delivered (USD/MT)(CIF)	229.7	221.4	165.5
Average Coal Price Delivered (RM/MT)(CIF)	1,023.8	960.4	696.3
Coal Consumption (mil MT)	8.3	8.4	7.4
Gas Reference Market Price (RM/mmbtu)			
Tier 1	30.0	30.0	30.0
Tier 2	43.4	38.2	36.9
Daily Average Piped Gas Volume (mmscfd)	862	905	912

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

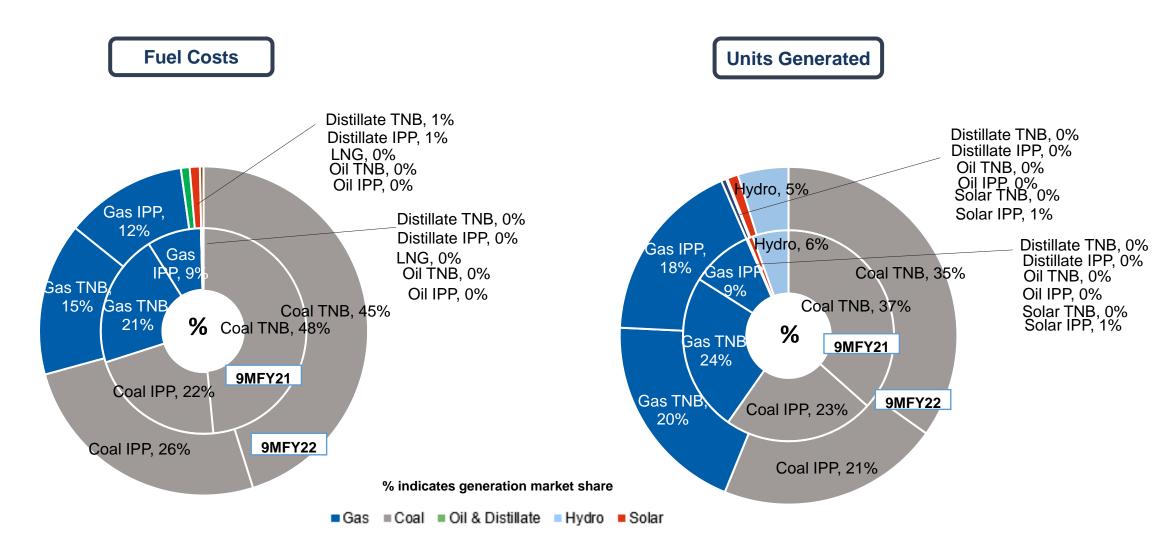
	3QFY22 2QFY22 1QFY22		Variance	3Q vs 2Q	
	JQI 122	20(1122	IQI IZZ	USD	%
FOB	215.8	207.1	152.3	8.7	4.2
Freight	13.4	13.8	12.6	(0.4)	(2.7)
Others	0.5	0.5	0.5	(0.0)	(2.0)
CIF	229.7	221.4	165.4	8.3	3.7

Higher units generated from hydro in 3QFY22

Generation MIx for Industry (%)



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

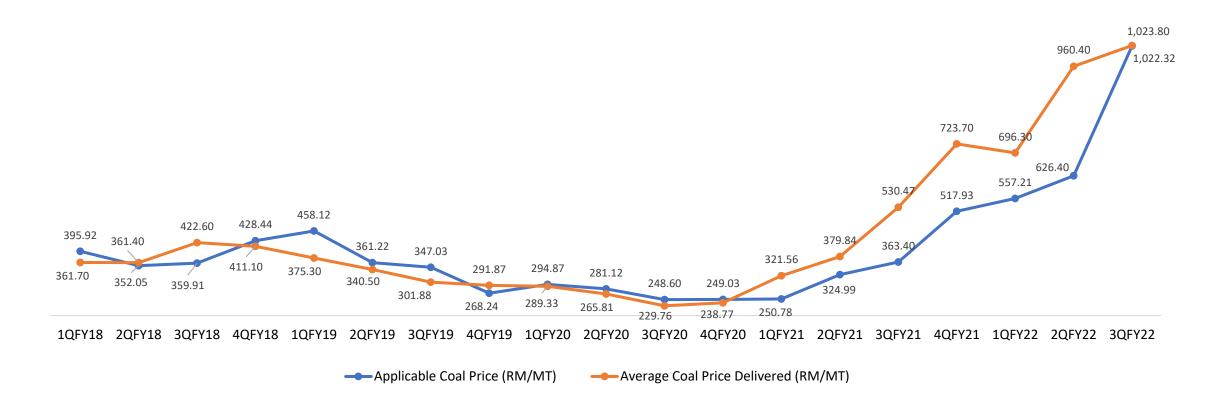


Note: Fuel Cost exclude solar and hydro

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

	3QFY21	4QFY21	1QFY22	2QFY22	3QFY22
	(RM mil)				
Reported Total Cost of Generation (with MFRS16)	6,107.3	8,438.1	8,367.1	11,634.6	11,029.5
Adjustment not related to IBR	756.6	753.6	909.5	948.3	840.2
TNB Capacity and VOR: SLA & SPV	1,372.9	1,594.8	1,816.1	1,621.5	2,191.0
Total Generation Costs	8,236.8	10,786.5	11,092.7	14,204.4	14,060.7
(Related to IBR)	0,200.0	10,100.0	11,002.7	14,204.4	14,000.7
	3QFY21	4QFY21	1QFY22	2QFY22	3QFY22
	(RM mil)				
Single Buyer Actual Generation Costs: (A)	8,236.8	10,786.5	11,092.7	14,204.4	14,060.7
Actual Sales (GWh)	26,830.8	29,367.3	28,959.3	30,159.7	30,347.5
Single Buyer Tariff (RM/kWh)	0.2580	0.2580	0.2620	0.2620	0.2620
Actual Gen Cost Recovered (RM mil) (B)	6,923.2	7,577.7	7,587.3	7,901.8	7,951.0
ICPT Surcharge / (Rebate) (C) (C = A – B)	1,313.5	3,208.8	3,505.4	6,302.6	6,109.6

Coal price trending



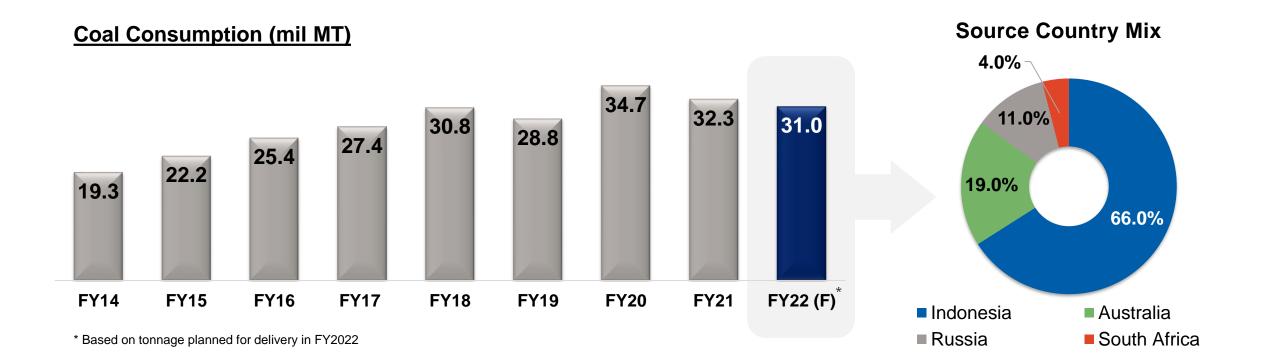
Coal price & Applicable Coal Price (ACP) comparison

	4QFY21	1QFY22	2QFY22	3QFY22
Average Coal Price Delivered (RMmmbtu) *	32.88	31.88	46.76	48.88
ACP (RM/mmbtu)	23.73	25.53	28.70	46.84

^{*} 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 3QFY22, the base ACP (RM46.84/mmbtu) used for billing the generators is lower than the coal price paid to supplier (RM48.88/mmbtu).

Industry coal requirement forecast for FY2022

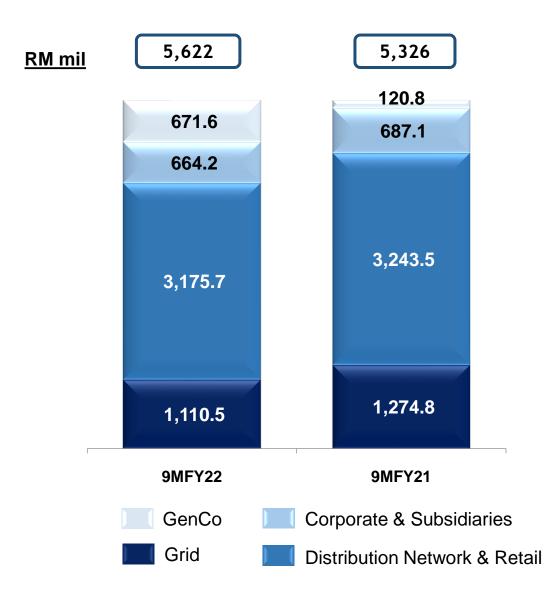


MFRS 16: Group PAT is negatively impacted by RM700.5 mil

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

	9MFY22 (RM mil)	9MFY21 (RM mil)	Variance (RM mil)
Capacity Payment	3,328.0	3,149.2	178.8
Depreciation	(2,902.4)	(2,607.0)	(295.4)
Finance Cost	(1,332.1)	(1,097.7)	(234.4)
Deferred Tax	206.0	121.3	84.7
Net Impact to PAT	(700.5)	(434.2)	(266.3)

Group CAPEX



Regulated CAPEX and Regulated Asset Base (RAB)

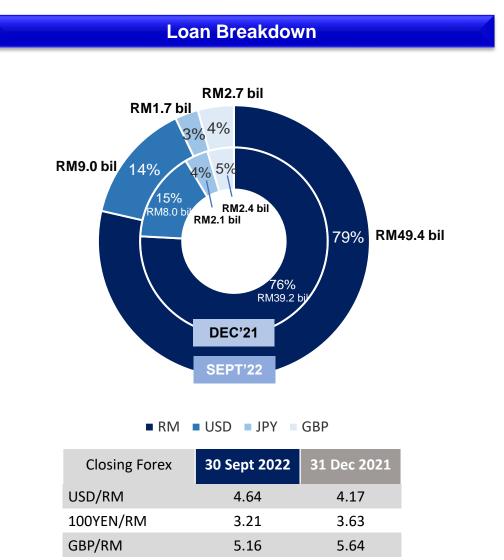
	RP3 RE	GULATED ENTITIES CAPEX		
FY	IBR Approved (RM mil)	Actual YTD (RM mil)	Utilisation (%)	
2022	7,168.0	4,274.9 As at Sept'22	59.6%	

Total RAB (RM mil)		
Actual 9MFY22	Approved FY2022	
60,036.6	62,248.7	
Regulatory net returns: RM3,394.7 mil		

Gearing stood at 51.2% in 9MFY22

Statistics	30 Sept 2022	31
Total Debt (RM bil)	62.9	
Net Debt (RM bil)*	50.6	
Gearing (%)	51.2	
Net Gearing (%)	41.2	
Fixed : Floating		
Underlying	96:4	
Final Exposure	99:1	
Effective Average Cost of Borrowing (based on exposure) **	4.54	

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



Dec 2021

51.7

42.5

47.0

38.6

95:5

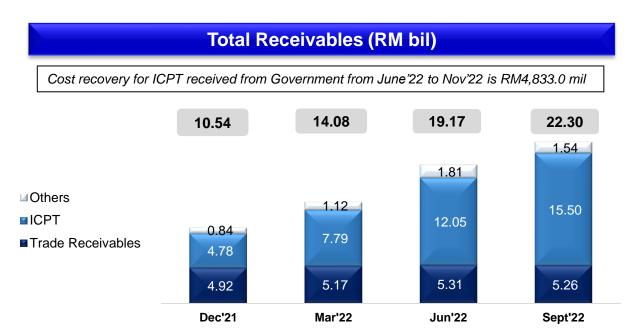
99:1

4.61

Debt consists of Principal + Accrued Interest

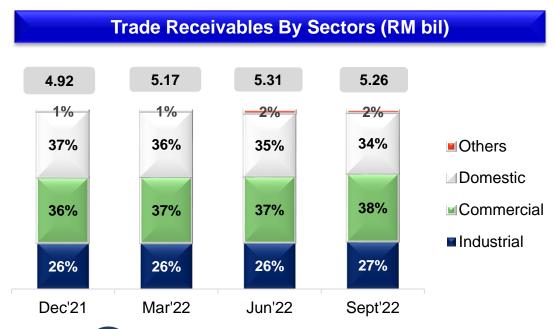
^{**} Inclusive of interest rate swap

Improvement in trade receivables resulting from effective credit management





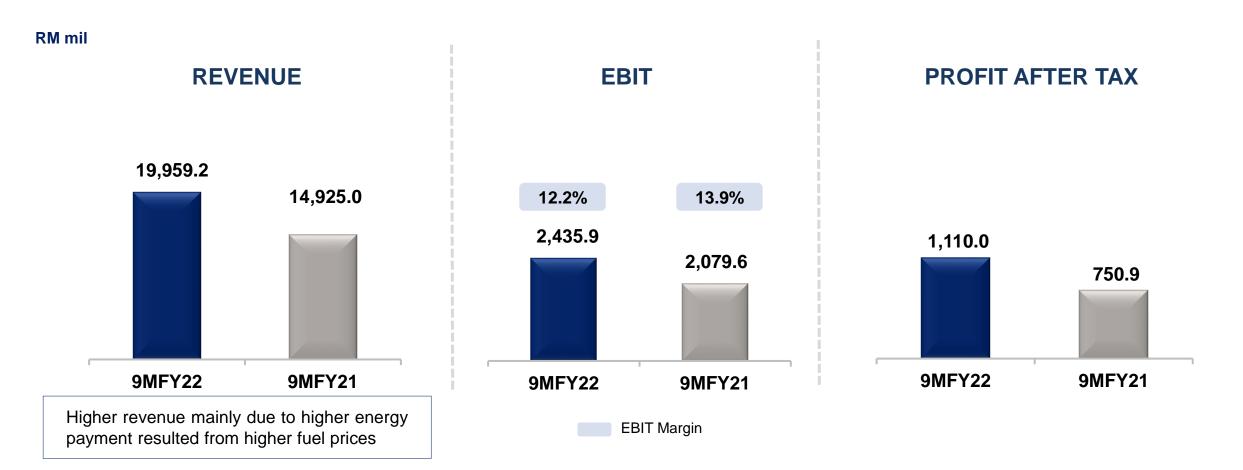
- Amid the high fuel cost, ICPT receivables is high due to the timing mismatch between the upfront payment made by TNB and recovery of the surcharges via the ICPT framework. The cost of working capital is also recoverable through ICPT.
- We continuously monitor our cash flow position on a daily basis and remain prudent on our working capital management.





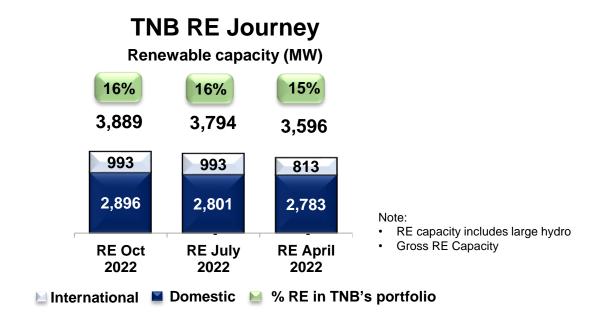
- Promotional activities to increase enrolment of Autopay, Direct Debit and e-Bulk Scheme to targeted domestic and non-domestic customers.
- Enrich customer experience, especially via digital payment channels such as myTNB, Online Banking and e-Wallet.
- Provide personalised engagement with large power 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.

Domestic generation business performance



Note: Includes generation related subsidiaries

Our RE journey is progressing well



Recent RE Progress

1) Domestic renewables

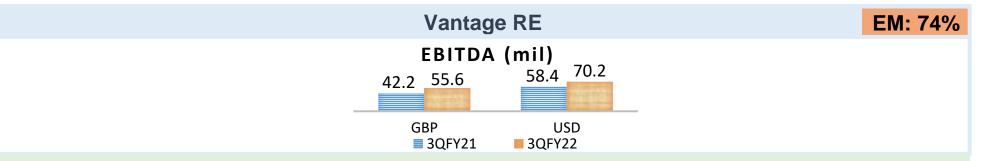
- We have signed a 30-year power purchase agreement for the 300MW Nenggiri hydro plant which is expected to commence on 1 June 2027.
 The construction works have started since 1 March 2022.
- GSPARX has successfully secured a total capacity of 240.9MW as of Oct 2022. (December 2021: secured 116.3MW)
- 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.

International Business - Core/Renewable energy (RE) assets

International Performance as at Sept'22



- Higher EBITDA YoY due to better operational performance from Vantage Solar and TWV which is contributed by higher generation
 as a result of higher irradiance and favorable wind speed conditions experienced across the UK in H1 2022. Performance is further
 supported by higher PPA locked-in prices for both assets.
- The addition of 97.3MW onshore wind asset in April 2022 has resulted in an increase to EBITDA by GBP 9.2mil on a YoY basis.
- The total cash distribution declared to date amounting to GBP 72.68mil.

Outlook for Vantage RE:

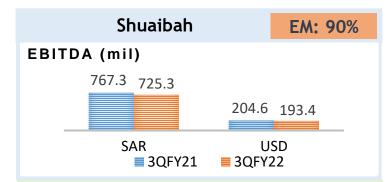
- Successfully completed acquisition of a 97.3MW operating onshore wind portfolio in the UK on 1st April 2022 with addition of MW growth and EBIT contribution to the portfolio.
- Vantage is focused on expanding its current pipeline build to include more greenfield assets at various stages and technologies with the aim to develop new Renewable Energy (RE) projects as it pursues a higher economic internal rate of return.
- Vantage Solar and CEI UK have also locked-in record high Renewable Energy Guarantees of Origin (REGO) prices with expected upside over the next 5 years.
- Based on the recent announcement, the UK government has scrapped the Cost-Plus Revenue Limit (CPRL) for renewables and nuclear generators proposed in October 2022 and replaced it with a windfall tax (levy on extraordinary returns). The levy takes effect from 1 January 2023 to 31 March 2028. The levy will not be deductible from profits subject to Corporation Tax and is administered in the same way as Corporation Tax.
- Inflation increased to 10.1% in September 2022 and is currently expected to peak in Q4 2022. However, 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 – Non-core assets

International Performance as at Sept'22



- 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 March 2022 and August 2022.
- Shuaibah maintains solid financial performance with higher YoY net profit by 26%.

Outlook for Shuaibah:

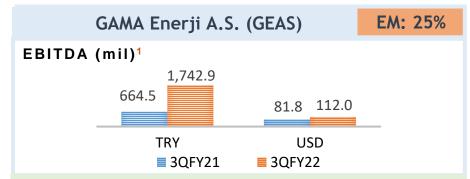
- Shuaibah is to remain largely unimpacted by the Russia-Ukraine war as the Power and Water Purchase Agreement (PWPA) has been contracted for 20 years with the Saudi Government as the offtaker.
- Shuaibah's performance is expected to remain positive with a consistent dividend distribution to shareholders.

Notes:

EM: YTD EBITDA Margin

¹Reported 3 months lagging

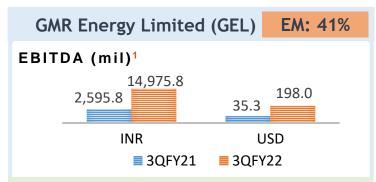
²EPIAS is the market operator responsible for operating day-ahead, intra-day and balancing markets in the country



 Higher EBITDA YoY is mainly contributed by higher power prices as a result of higher share of gas generation.

Outlook for GEAS:

- Turkey is experiencing hyperinflationary economy as Turkey's inflation has surged at all time high ~85%. 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 is still in process of preparing the application of IAS 29 "Financial Reporting in Hyperinflationary Economies" and assessing the adjustment impact towards its financial reporting.
- Recently, Energy Market Regulatory Authority (EMRA) had extended the regulation of allowing retail electricity suppliers to delay daily payments to EPIAS² by monthly basis until end of October 2022. GEAS has taken precautional measures by increasing its bilateral sales with retail clients.
- Nevertheless, GEAS has made early debt repayment for ICAN's debt scheduled in 2022 and 2023 and the successfully restructured debt within GEAS's portfolio provides sustainability to weather through current volatility in the market. In near term, GEAS is expected to secure payment for principal and interest in 2022 to 2023 from DIWACO's dividends and ICAN's cash flows.



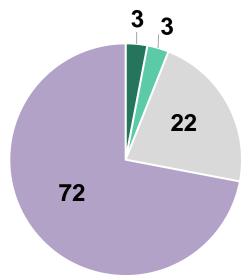
 Higher EBITDA YoY due to the full consolidation of Kamalanga's financial results upon the recognition of Kamalanga as a subsidiary (GEL previously recognized Kamalanga's share of profits only). It is also due to a one-off gain post-Warora debt restructuring.

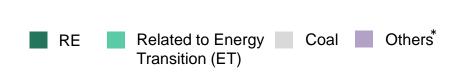
Outlook for GEL:

- Peak Power Demand for September 2022 rose to 199.47GW, which was 180.73GW last year due to improvement in economic activities and the festive seasons in India.
- GEL coal plants (i.e., Kamalanga and Warora) had drawn up their coal strategies to ensure 100% linkage coal supply and coal procurement at competitive prices via e-auctions. In August and September 2022, only Kamalanga had imported coal at a much higher price. There are no plans for both power plants to import coal in the near future.
- 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".

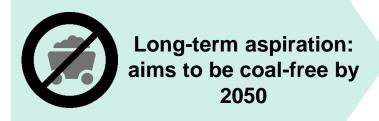
Ensuring revenue from coal remains below 25%, towards longer-term aspiration

Actual Group Revenue 9MFY22 (%)



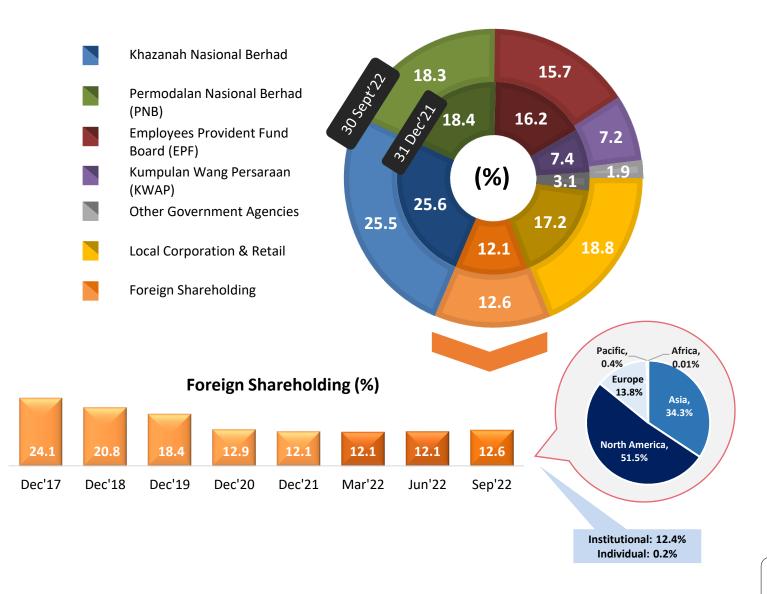


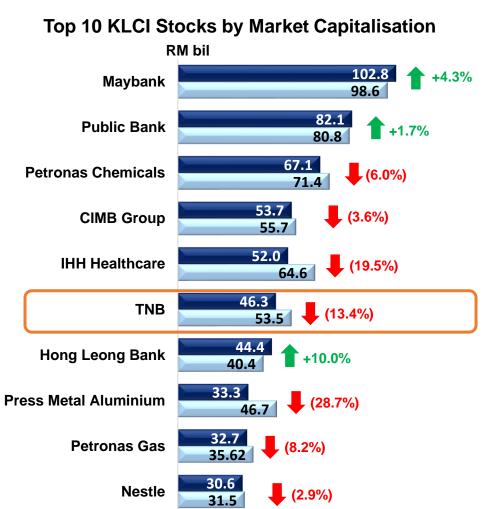
* Others include revenue from regulated entities, subsidiaries and generation from gas



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

TNB market capitalisation of RM46.3 bil as at 30 September 2022





Note:

1. Top 10 KLCI ranking by Market Capitalisation as at 30 Sept 2022

■31 Dec 2021

2. TNB Latest Market Cap: RM48.2 bil (6th), as at 21 Nov 2022

■30 Sep 2022



Disclaimer

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