



# INVESTOR PRESENTATION



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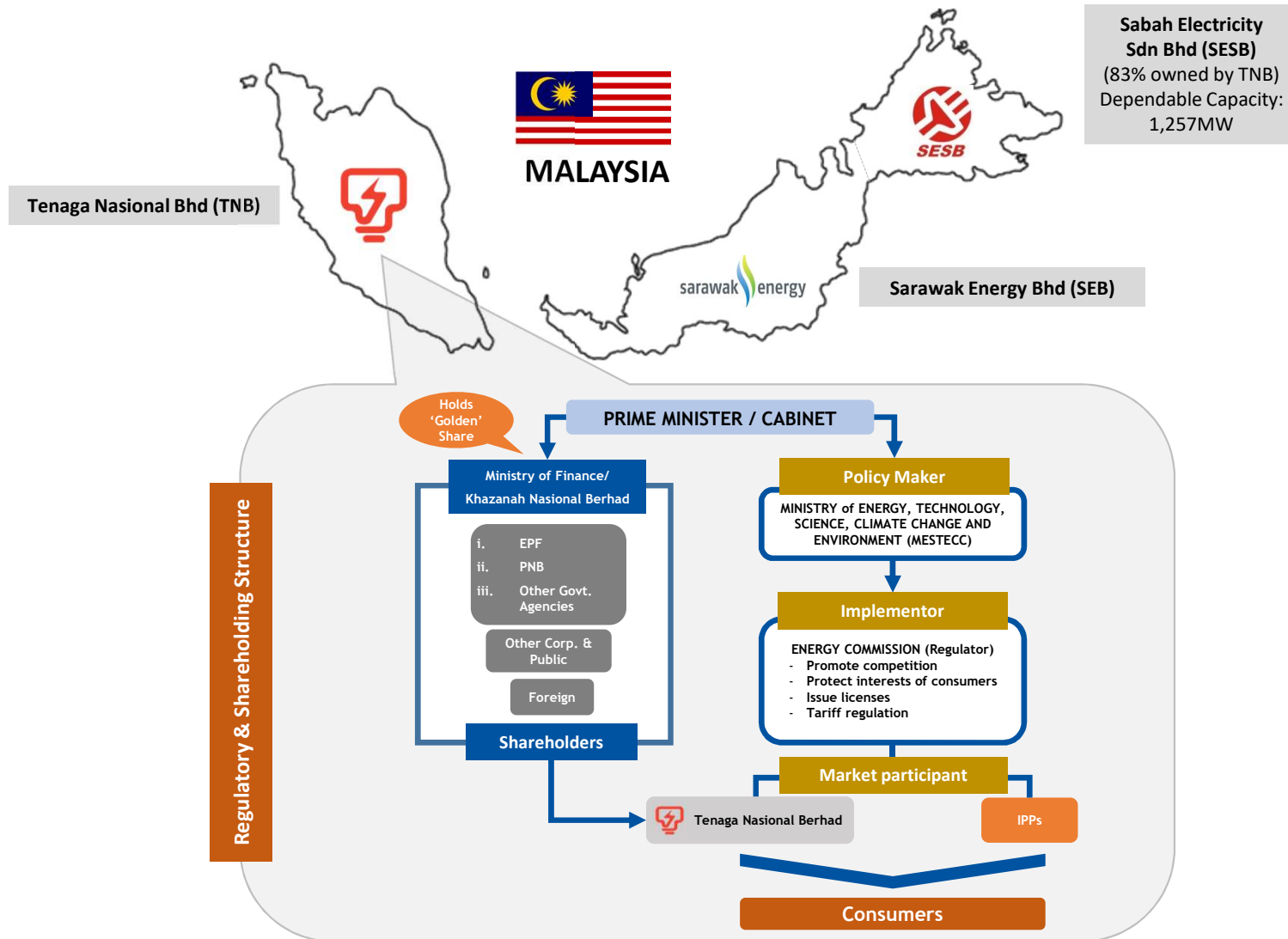
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# INTRODUCTION TO TENAGA



# INTRODUCTION TO TENAGA

Core Business

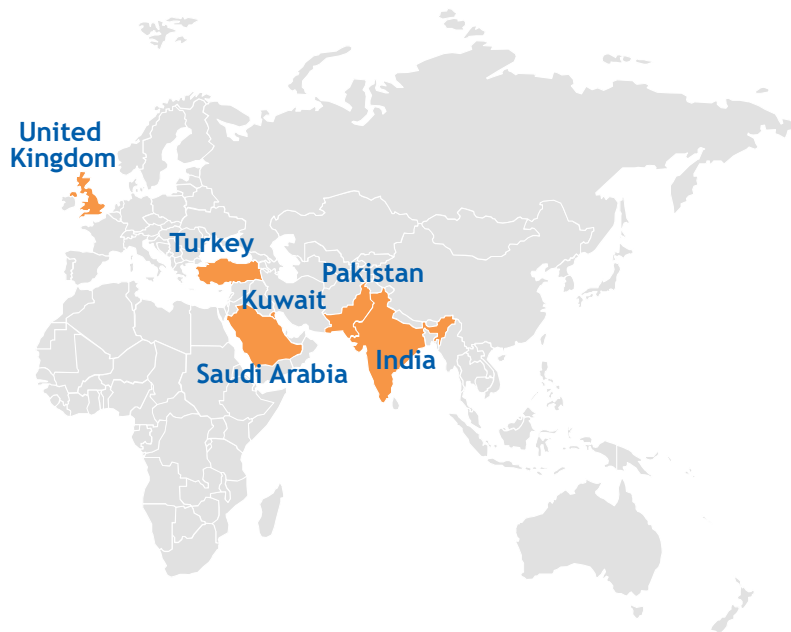
Generation	Grid/Transmission	Distribution Network & Customer Service
Non-Regulated Business	Regulated Business	
<div><div><div>TNB Generation Mix:</div><div><div><div><div>Oil &amp; Distillate</div><div><div></div></div></div><div>0.01%</div></div><div><div><div>Solar</div><div><div></div></div></div><div>0.2%</div></div><div><div><div>Hydro</div><div><div></div></div></div><div>4.9%</div></div><div><div><div>Gas &amp; LNG</div><div><div></div></div></div><div>37.2%</div></div><div><div><div>Coal</div><div><div></div></div></div><div>57.7%</div></div></div></div><div><div>Installed Capacity:</div><div>24,196MW</div><div>TNB: 13,038MW @ 53.9%</div><div>IPP: 11,158MW @ 46.1%</div></div><div><div>Generation Market Share:</div><div>52.8%</div></div><div><div>Equivalent Availability Factor (EAF):</div><div>91.5%</div></div><div><div>Note: TNB installed capacity &amp; Market Share are based on gross capacity</div></div></div>	<div><div>Transmission Network Length:</div><div>23,082KM</div></div> <div><div>Transmission Substations:</div><div>443</div></div> <div><div>Transmission System Minutes:</div><div>0.12 mins</div></div>	<div><div>Distribution Network Length:</div><div>660,038KM</div></div> <div><div>Distribution Substations:</div><div>81,327</div></div> <div><div>SAIDI:</div><div>25.8 mins</div></div> <div><div>Customer Satisfaction Index (CSI):</div><div>8.1</div></div>

Source: TNB Data / Info as at June 2019

Non-Core Business	Main Subsidiaries		
	Non-Regulated Business		
	<p><b>Operation &amp; Maintenance (O&amp;M)</b></p> <ul style="list-style-type: none"> <li>TNB Repair &amp; Maintenance Sdn. Bhd. (REMACO)</li> </ul> <p><b>Manufacturing</b></p> <ul style="list-style-type: none"> <li>Tenaga Switchgear Sdn. Bhd.</li> <li>Malaysia Transformer Manufacturing Sdn Bhd.</li> <li>Tenaga Cables Industries Sdn. Bhd.</li> </ul>	<p><b>Renewables, Energy Efficiency &amp; Other Services</b></p> <ul style="list-style-type: none"> <li>TNB Renewables Sdn. Bhd.</li> <li>GSPARX Sdn. Bhd.</li> <li>TNB Energy Services Sdn. Bhd.</li> <li>TNB Engineering Corporation Sdn. Bhd.</li> <li>Integrax Bhd.</li> <li>Allo Technology Sdn. Bhd.</li> </ul>	<p><b>Education &amp; Research</b></p> <ul style="list-style-type: none"> <li>TNB Integrated Learning Solution Sdn. Bhd. (ILSAS)</li> <li>TNB Research</li> <li>University Tenaga Nasional (UNITEN)</li> </ul>

# INTRODUCTION TO TENAGA

Expanding Global Footprint To Achieve Aspiration – TNB is currently present in more than 5 countries



**TNB'S FOCUS ON INTERNATIONAL  
EXPANSION  
AND INVESTMENT IN THERMAL &  
RENEWABLE ENERGY**



United Kingdom

- 50% equity ownership in Vortex Solar Investments S.à.r.l (May 2017)
- 80% equity ownership in Operational Onshore Wind Portfolio in UK (Feb 2018)



Turkey

- 30% equity ownership in GAMA Enerji A.Ş. (Apr 2016)



Saudi Arabia

- 20% equity ownership in a Malaysian Shoaiba Consortium Sdn Bhd (Aug 2005)
- REMACO O&M Services for Shuaibah IWPP (Jan 2010)



Kuwait

- REMACO O&M for 225MW Sabiya Power Generation & Water Distillation Plant (July 2014)
- REMACO O&M for Shuaiba North Co-Gen 780MW Power; 204,000 m3/day water (Sept 2013)
- REMACO O&M for 210MW Doha West Power Generation & Water Distillation Plant (Nov 2016)



Pakistan

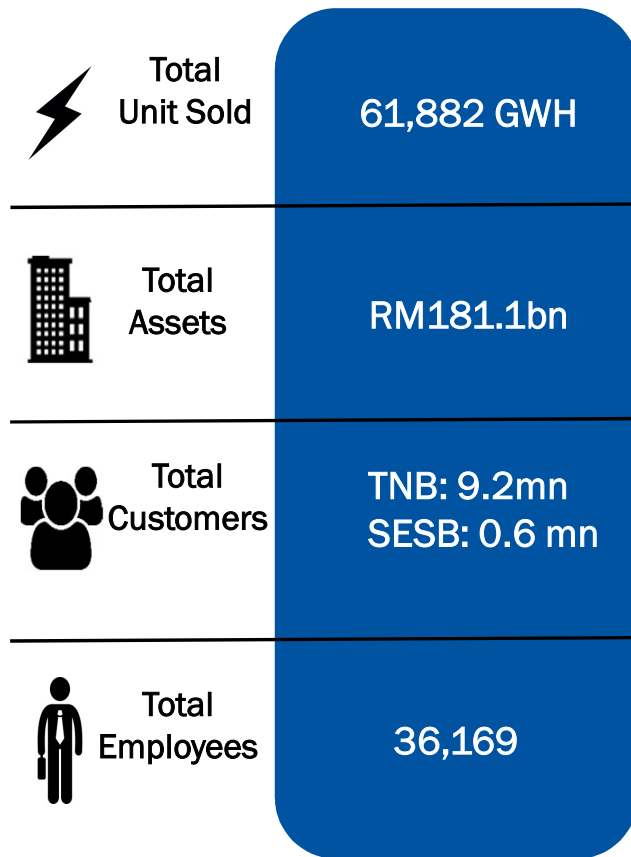
- Liberty Power Ltd 235MW (Sept 2001)
- REMACO O&M Services - Bong Hydro Plant (May 2011)
- REMACO O&M Services - Balloki Power Plan (July 2018)



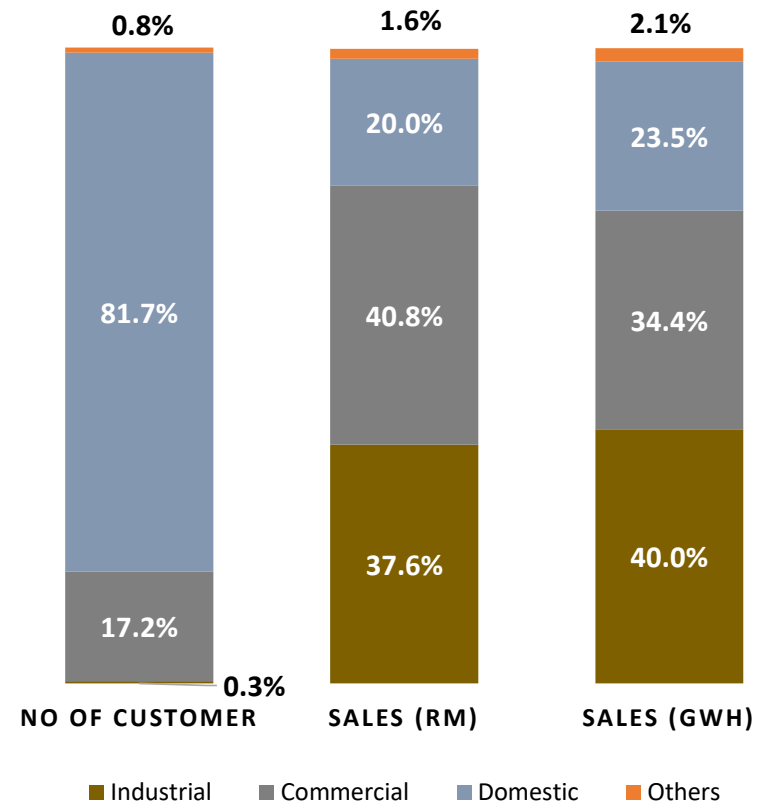
India

- 30% equity ownership in GMR Energy Ltd (Nov 2016)
- Convertible debenture in Bajoli Holi

# INTRODUCTION TO TENAGA



## TNB Sectoral Sales Analysis\*



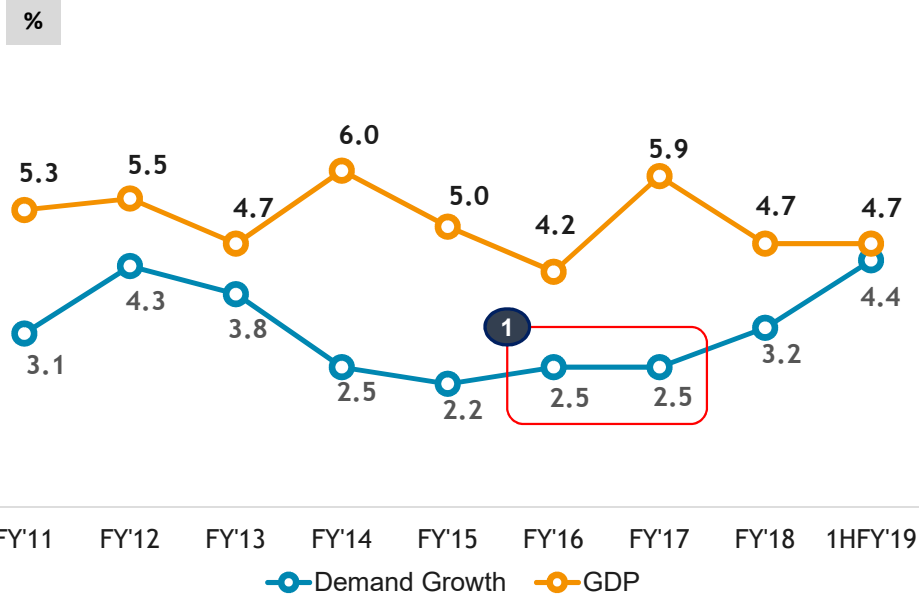
**Note:** Data / Info as at 1HFY19 (June 2019)

\* Peninsular Malaysia only (TNB exclude SESB and other subsidiaries)

# INTRODUCTION TO TENAGA

## Strong Demand Growth Supported by New Peak Demand in 2QFY'19

GDP & TNB (Peninsula) Demand Growth by Financial Year



1

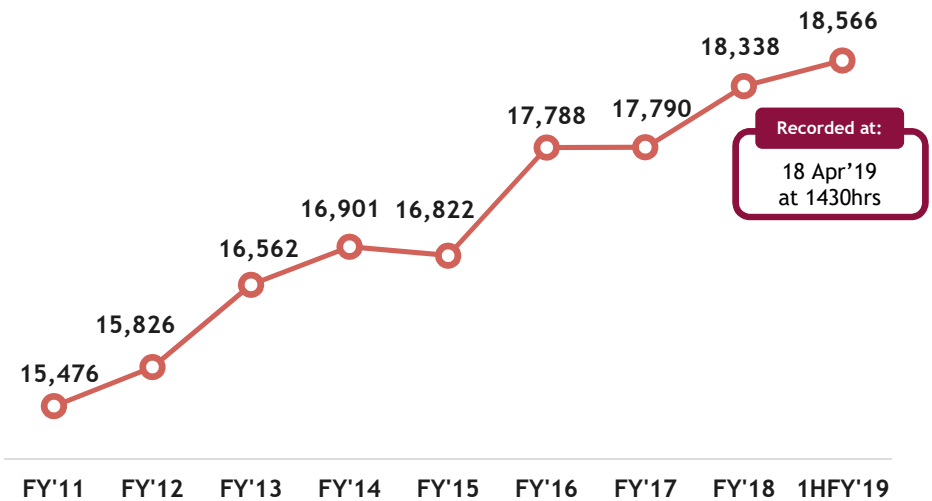
Average demand growth for FY2016 & FY2017. This is to eliminate the one-off El-Nino phenomenon during 3QFY'16

### Note:

- Data / Info as at 1HFY19 (June 2019)
- Peninsular Malaysia only (TNB exclude SESB and other subsidiaries)

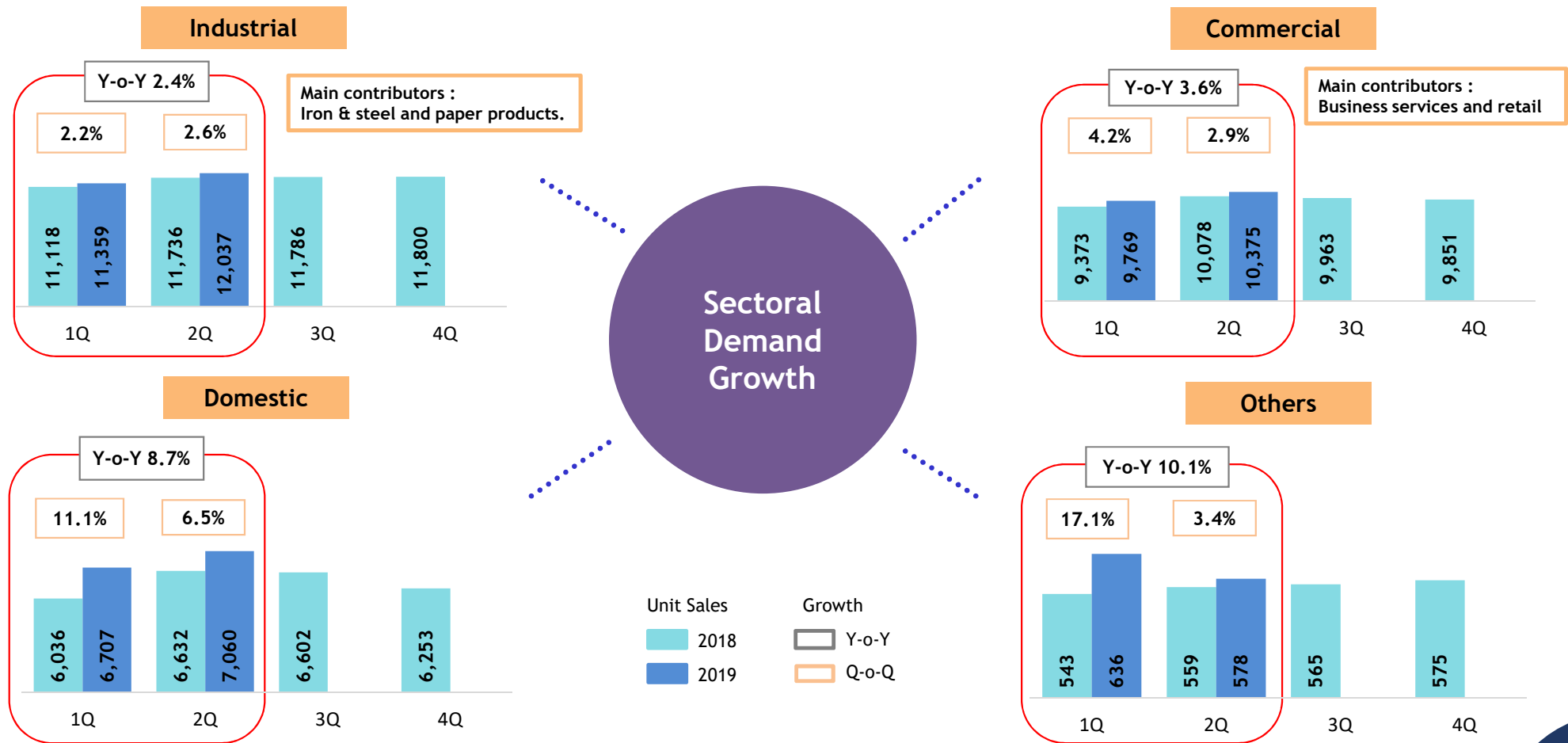
TNB (Peninsula) Yearly Peak Demand

MW



# INTRODUCTION TO TENAGA

Positive Growth for All Sectors (GWh)\*



**Note:** Data / Info as at 1HFY19 (June 2019)  
 \* Peninsular Malaysia only (TNB exclude SESB and other subsidiaries)

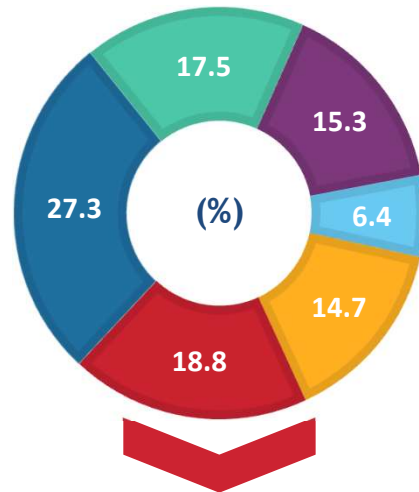


# INTRODUCTION TO TENAGA

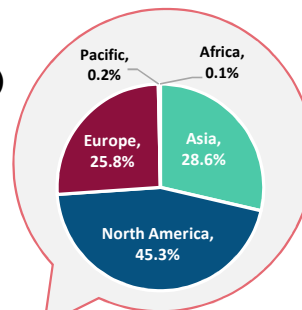
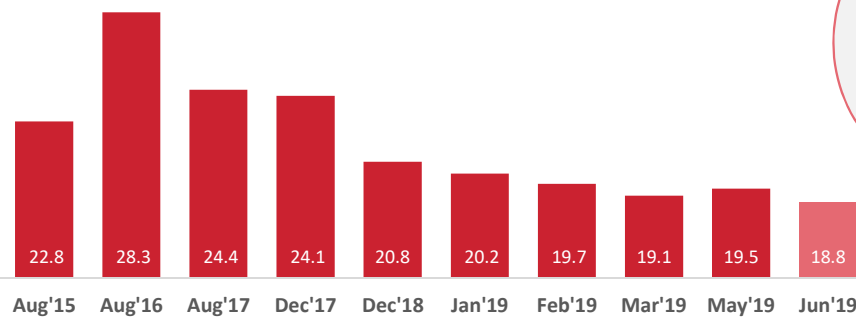
## TNB Shareholding

Shareholding as at Jun'19

- Khazanah Nasional Berhad
- Permodalan Nasional Berhad
- Employees Provident Fund Board
- Other Government Agencies
- Other Local Corp. & Malaysian Public
- Foreign Shareholdings

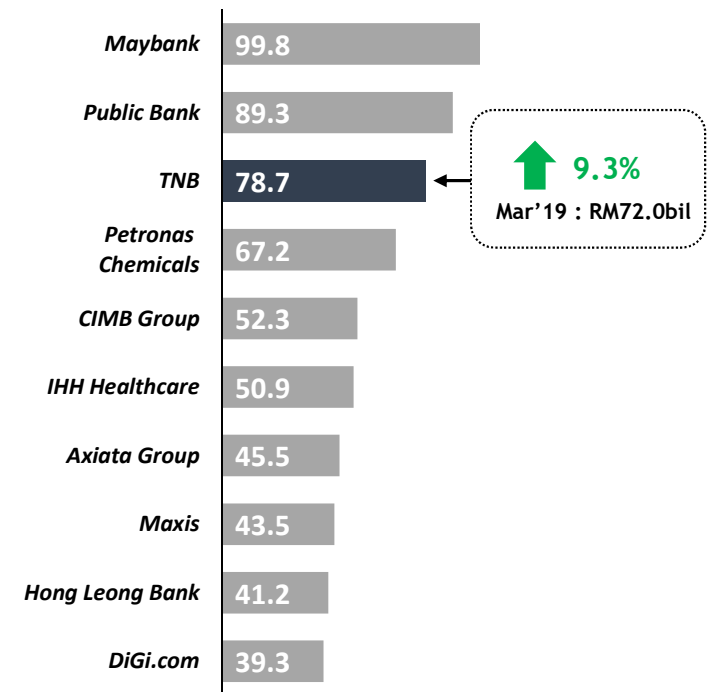


Foreign Shareholding (%)



Institutional: 18.81%  
Individual: 0.02%

Top 10 KLCI Stocks by Market Capitalization as at Jun'19



Note:

TNB Latest Market Cap: RM78.1bil (3<sup>rd</sup>), as at 28<sup>th</sup> Aug 2019

# INTRODUCTION TO TENAGA

## Composition of BOD



**CHAIRMAN**  
**TAN SRI LEO MOGGIE**



**EXECUTIVE DIRECTOR / CEO**  
**DATUK SERI AMIR HAMZAH BIN AZIZAN**

### Independent Non-Executive Directors (Total = 5)



**NORAINI BINTI CHE DAN**

Expertise: Audit & Finance



**GEE SIEW YOONG**

Expertise: Audit & Finance



**ONG AI LIN**

Expertise: Audit & Finance



**GOPALA KRISHNAN A/L K.SUNDARAM**

Expertise: Law



**JUNIWATI BINTI RAHMAT HUSSIN**

Expertise: Project Management, Corporate  
Planning and Human Resource

### Non-Independent Non-Executive Directors (Total =3)



**DATUK AHMAD BADRI BIN  
MOHD ZAHIR**  
(MoF)



**AMRAN HAFIZ BIN AFFIFUDIN**  
(Khazanah)



**DATO' ROSLINA BINTI ZAINAL**

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FINANCIAL & TECHNICAL HIGHLIGHTS

# REGULATORY INCENTIVE BASED REGULATION (IBR)

## A Mechanisms For Tariff Setting With Incentives To Improve Efficiency & Greater Transparency

Regulatory Environment:

### 1. Clear and Transparent Regulatory Framework

Clear and transparent regulatory framework governed by the Energy Commission provides investors with confidence in TNB's cash flow visibility

### 2. Consistent and Clear Returns

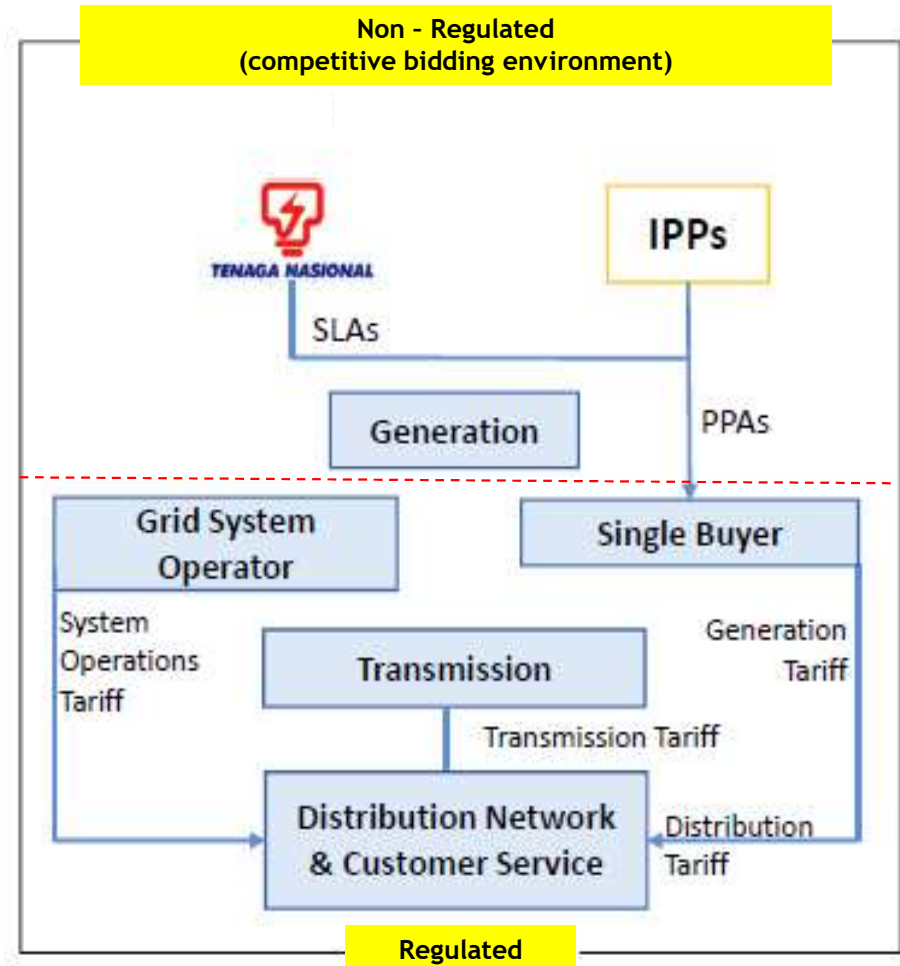
Regulatory WACC of 7.3% provides consistent and clear return to debt and equity holders

### 3. Shield against Uncontrollable Swings

Imbalance Cost Pass-Through mechanism shields Tenaga against uncontrollable swings in input costs, with a review every 6 months

### 4. Incentives for Operational Efficiencies

Incentive / Penalty mechanism provides clear incentives for TNB to achieve operational efficiencies



Source: Energy Commission (EC)

# REGULATORY INCENTIVE BASED REGULATION (IBR)

## Imbalance Cost Pass-Through (ICPT) Mechanisms Ensures TNB Remain Neutral

Base Tariff under IBR framework comprises of:

- Opex, Depreciation of Regulated Assets & Tax Expenses of Business Entities
  - transmission, grid system operation, Single Buyer operation, distribution network and customer services
- Power purchase cost charged by generators to the Single Buyer  
**(based on fuel forecast base price)**
- Return on regulated assets (rate base) of Business Entities
  - Reviewed every 3 years

Imbalance Cost Pass-Through (ICPT):

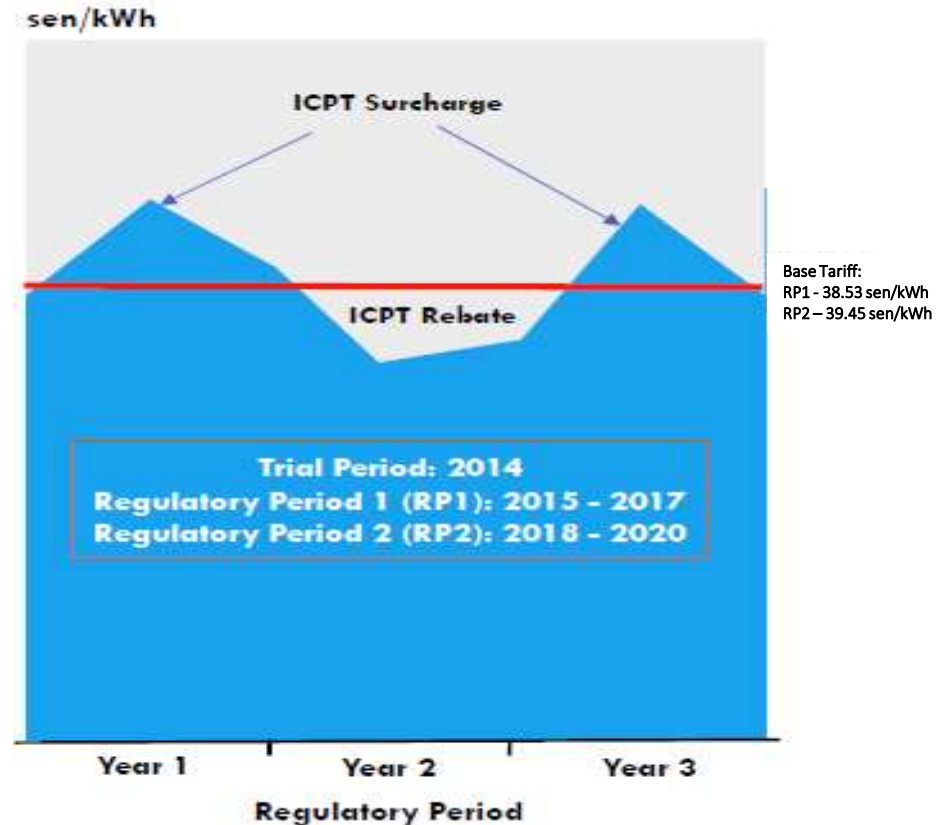
- ICPT is 6-monthly pass-through of variations in uncontrollable fuel costs and other generation specific costs (imbalance cost) incurred by utility for the preceding 6-month period
  - Reviewed every 6 months

### Principle for ICPT Calculation

Cost components comprise of

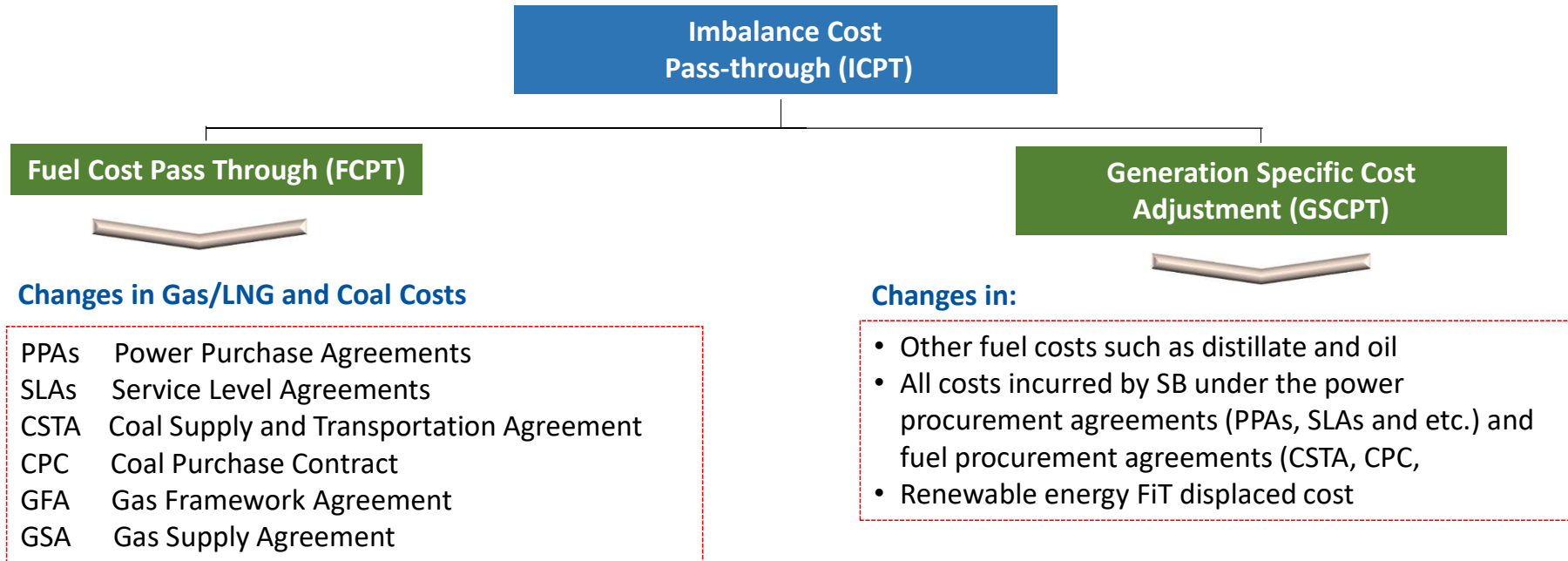
- The ICPT is calculated based on an estimated actual fuel cost and generation specific costs for a particular six (6) months period against the corresponding baseline costs in the Base Tariff.

Source: Energy Commission (EC)



# REGULATORY INCENTIVE BASED REGULATION (IBR)

## Imbalance Cost Pass-Through (ICPT) Comprises Two Components



### RP2

ICPT	Announcement	Surcharge	Period
Jan – Jun'18	RM698.19mn	1.35sen/kWh	Jul – Dec'18
Jul – Dec'18	RM948.00mn	2.15sen/kWh	Jan – Jun'19
Jan – Jun'19	RM1,592mn	2.55sen/kWh	Jul – Dec'19

Source: Energy Commission, company presentations, company fillings

## REGULATORY INCENTIVE BASED REGULATION (IBR)

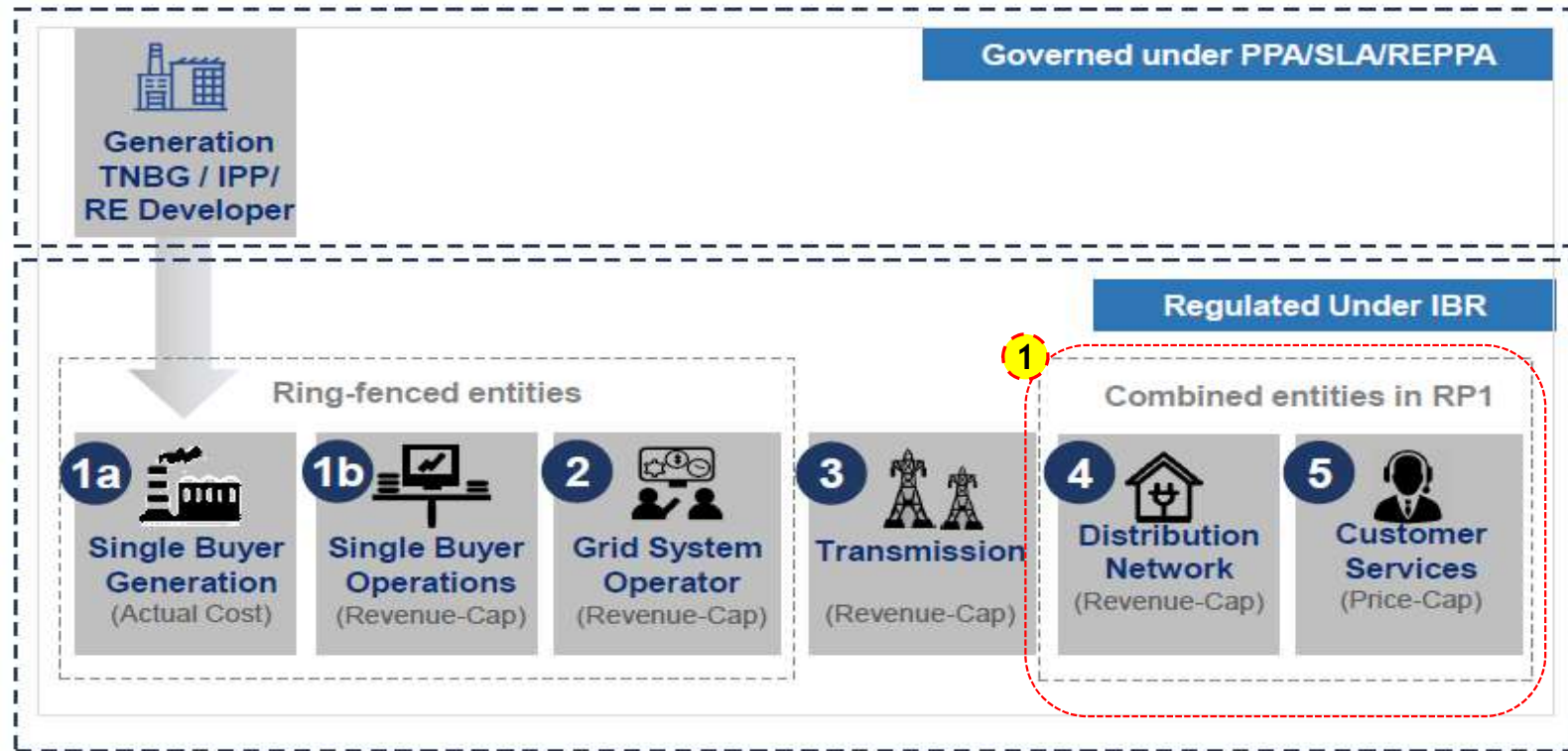
### New Features in Electricity Tariff Review for RP2 (2018-2020)

More efficient and reliable electricity supply	Support Government's initiatives and aspirations	New addition in Key Performance Indicators	Separation of Distribution Networks and Customer Services
<ul style="list-style-type: none"><li>• Efficient and reliable electricity supply at the lowest efficient cost;</li><li>• Enhancement in safety and reliability with smart grid capabilities.</li></ul>	<ul style="list-style-type: none"><li>• Supporting Government's initiatives in green energy and sustainability for example AML, Distribution Automation, Group Relamping of streetlight, etc.</li><li>• Continue the gas price subsidy rationalization by gradual removal of gas price subsidy;</li></ul>	<ul style="list-style-type: none"><li>• New performance indicators on each business entity that are in line with Government's policies;</li><li>• Enhancement on KPI mechanisms and principles (symmetric and asymmetric).</li></ul>	<ul style="list-style-type: none"><li>• Separation of these business entities will enhance the system reliability and consumer experience;</li><li>• This will increase the productivity and consumer satisfaction.</li></ul>



# REGULATORY INCENTIVE BASED REGULATION (IBR)

## IBR Entities

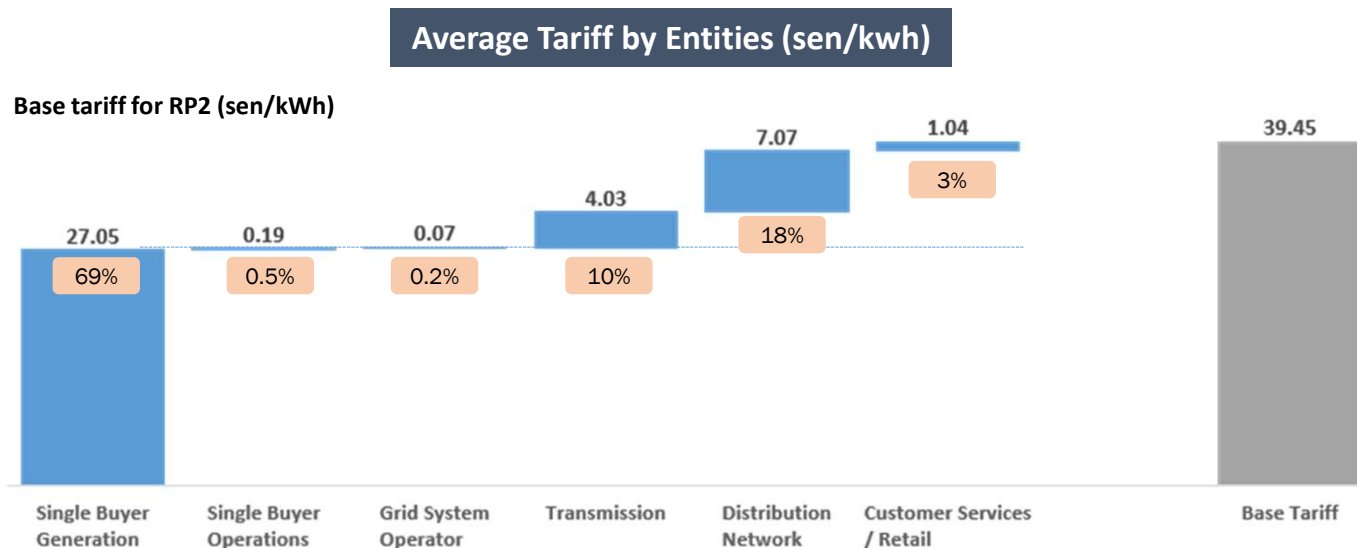


**1** In RP1, these 2 entity are grouped as Price -Cap entity

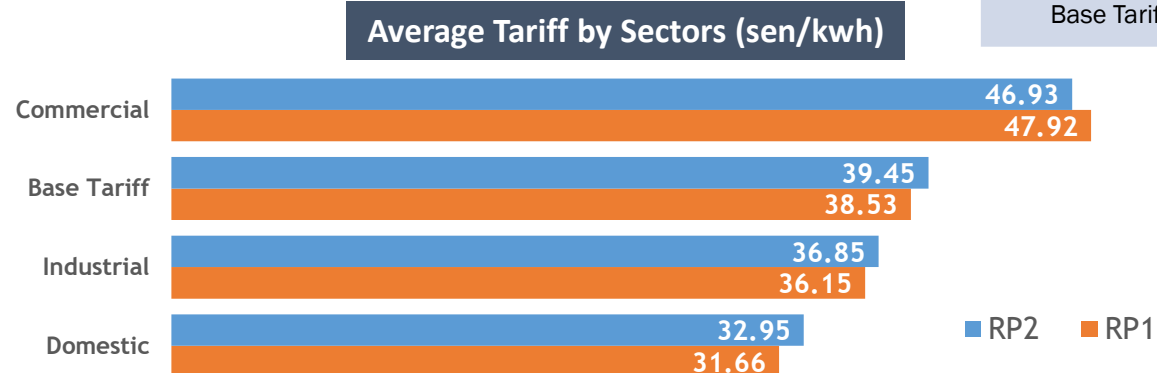


# REGULATORY INCENTIVE BASED REGULATION (IBR)

## New Base Tariff Under IBR Mechanism RP2



Entities		RP1 (sen/kWh)	Variance (RP2 v. RP1) (sen/kWh)
Single Buyer	Generation	26.76	+0.29
	Operation	0.19	-
Grid System Operator		0.05	+0.02
Transmission		3.66	+0.37
Distribution Network		6.77	+0.3
Customer Services		1.10	-0.06
Base Tariff		38.53	+0.92



Source: Energy Commission (EC)

# REGULATORY INCENTIVE BASED REGULATION (IBR)

## RP2 Parameters

### WACC

**7.3%**

RP1: 7.5%

### Avg. Regulated Asset Based (RAB)

**RM54.8bn**

(Avg. RAB in 2020)

RP1: RM43.6bn

(Closing RAB)

### TARIFF

**39.45 sen/kwh**

RP1: 38.53 sen/kwh

### OPEX

**RM18.2bn**

(Approved OPEX)

RP1: RM16.9bn

(Closing OPEX)

### CAPEX

**RM18.8bn\***

(Approved CAPEX)

RP1: RM15.7bn

(Closing CAPEX)

**\* Special  
Projects  
approved**

**1.5 million**  
smart meters in  
homes

**367,000**  
LED streetlights

**Fibre Optic**  
network development  
for energy security &  
reliability

### Fuel Parameters

#### Coal



**USD75/MT**

(RM14.47/mmbtu @ RM4.212/USD)

RP1: USD87.5/MT @ RM3.100/USD

#### LNG



**RM35/mmbtu**

RP1: RM41.68/mmbtu

#### Regulated Gas

@1,000mmcsfd



**RM24.20/mmbtu (Jan'18 - Jun'18)**

**RM25.70/mmbtu (Jul'18 - Dec'18)**

**RM27.20/mmbtu (Jan'19 - Jun'19)**

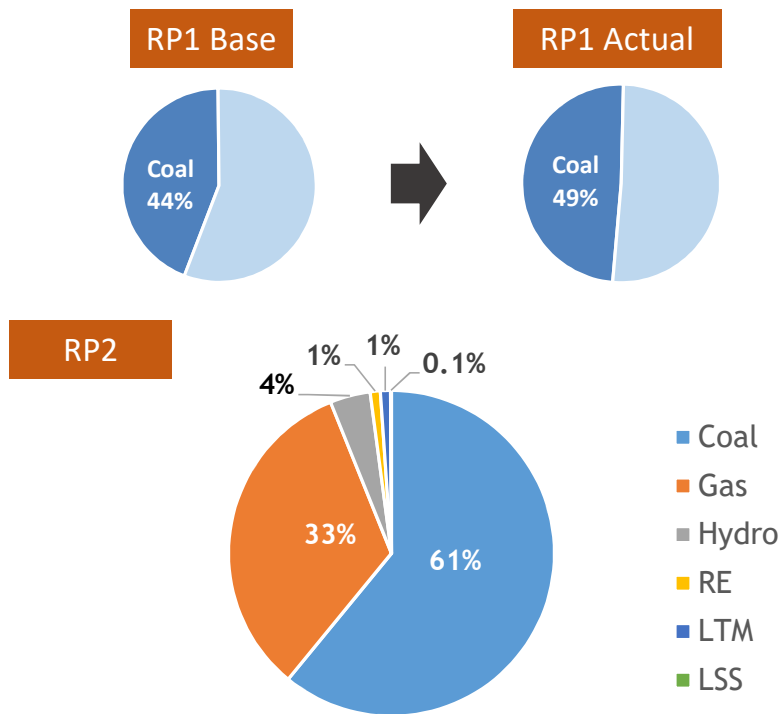
**RM28.70/mmbtu (Jul'19 - Dec'19)**

RP1: RM15.20/mmbtu – RM22.70/mmbtu

**RP2 Forecasted Gas Utilization: 840 mmcsfd**

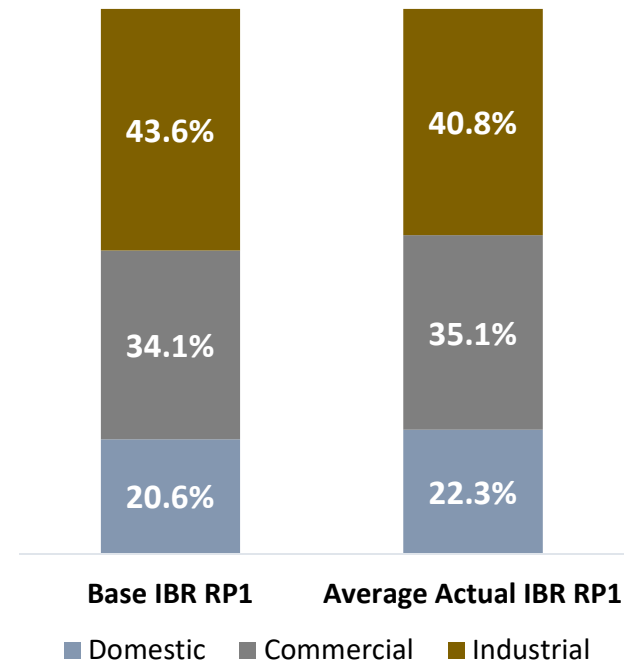
# REGULATORY INCENTIVE BASED REGULATION (IBR) Generation and Customer Mix

Generation Mix RP1 vs RP2



Made possible by improved coal plants performance and additional commissioning of coal plants.

Changes in Customer Mix (%) in RP1 (2015-2017)



RP2 Forecasted Demand Growth: 1.8 – 2.0%

**Note:**  
LTM – Laos, Thailand & Malaysia Interconnection; LSS – Large Scale Solar

**Source:** Energy Commission (EC)

# REGULATORY

## MESI 2.0

### 5 Key Initiatives of MESI Reform 2.0



#### FUEL

Allow generators to source own fuel (coal and gas) to optimise cost

- Encourage IPPs to source cheaper fuels
- Any cost-savings will be shared between end-users and the generators (ratio and exact mechanisms has yet to be finalised)



#### HYBRID PPA & NEDA+

- a) Move from PPA regime to capacity and energy market
  - Future PPAs will comprise capacity payments while excluding locked-in energy payments
  - Future PPAs will have shorter tenure (as opposed to the 21-25 year tenure practised previously)
- b) Generators with excess capacity or with expired PPAs can utilise the improved New NEDA+ to sell energy via spot contract to SB



#### THIRD PARTY ACCESS (TPA)

Establish TPA framework and network charges for grid to allow third party using the infrastructures

- To allow trading of green energy
- To pave a way for the future export of electricity under ASEAN Power Grid
- To open up for non-renewable power producers
- Buyer to acquire a minimum of 20MW directly from the RE supplier and TNB will be paid a certain network charge for renting out its grid



#### RETAIL

Facilitate choice in retail



#### SINGLE BUYER (SB) & GRID SYSTEM OPERATOR (GSO)

Increase transparency and reduce conflict of interest in SB and GSO

# REGULATORY

## MESI 2.0

### MESI Reform 2.0 Key Initiatives Timelines

KEY INITIATIVES		TIMELINES																			
		2019				2020				2021				2022				2023			
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
FUEL	MyPower to come up with draft on rules, incentive mechanisms, and amendments to regulatory control																				
	Energy Commission (EC) expected to approved and published these rules																				
	Pilot project																				
	Full roll-out																				
HYBRID PPA & NEDA+	MyPower to come up with the energy and capacity markets' design and rules																				
	EC to approve the design and rules																				
	EC will hold the first auction for the capacity market (hybrid PPA)																				
	The entry of the capacity market which will mark the beginning of the hybrid market till 2045, when the last batch of the current PPA ends - 2029																				
	EC will roll out an improved NEDA+ to incentivise more power producers with excess capacity or expired PPAs																				
TPA	EC and TNB to determine interim network charges based on RP2 to allow green energy power producers to ride on the grid																				
	Once interim network charges are decided, third party 100MW green contract will be piloted to last till the end of the 3 year RP3																				
	MyPower and EC to develop the rules / guidelines for the TPA with regards to market participation.																				
	EC is expected to approve and submit RP3 to the government for endorsement, including network charges																				
	EC to seek legal opinion on existing legislation TPA and other reform initiatives by end-2019. The new legislation (if necessary depending on legal opinion) will be tabled by end of 2022																				
RETAIL	EC and TNB will announce grid's green rider initiative																				
	MyPower will detail and complete a retail regulatory framework to be approved by EC by 4Q202																				
	1) Itemised billing based on RP3 will be rolled-out together with new tariff design and approved network charges																				
	2) Electricity time of use (which details different prices for the use of electricity at different times of the day) will be piloted																				
	Pilot of opening up of retail to take place after the roll out of retail regulatory framework																				
SB & GSO	The industry is expected to get ready for gradual price-based retail																				
	EC will make first disclosure of the government's Power Planning Plan																				
	MyPower will present a report on enhanced governance of SB and GSO																				
	The enhanced ring-fenced governance to start in 1Q2021																				

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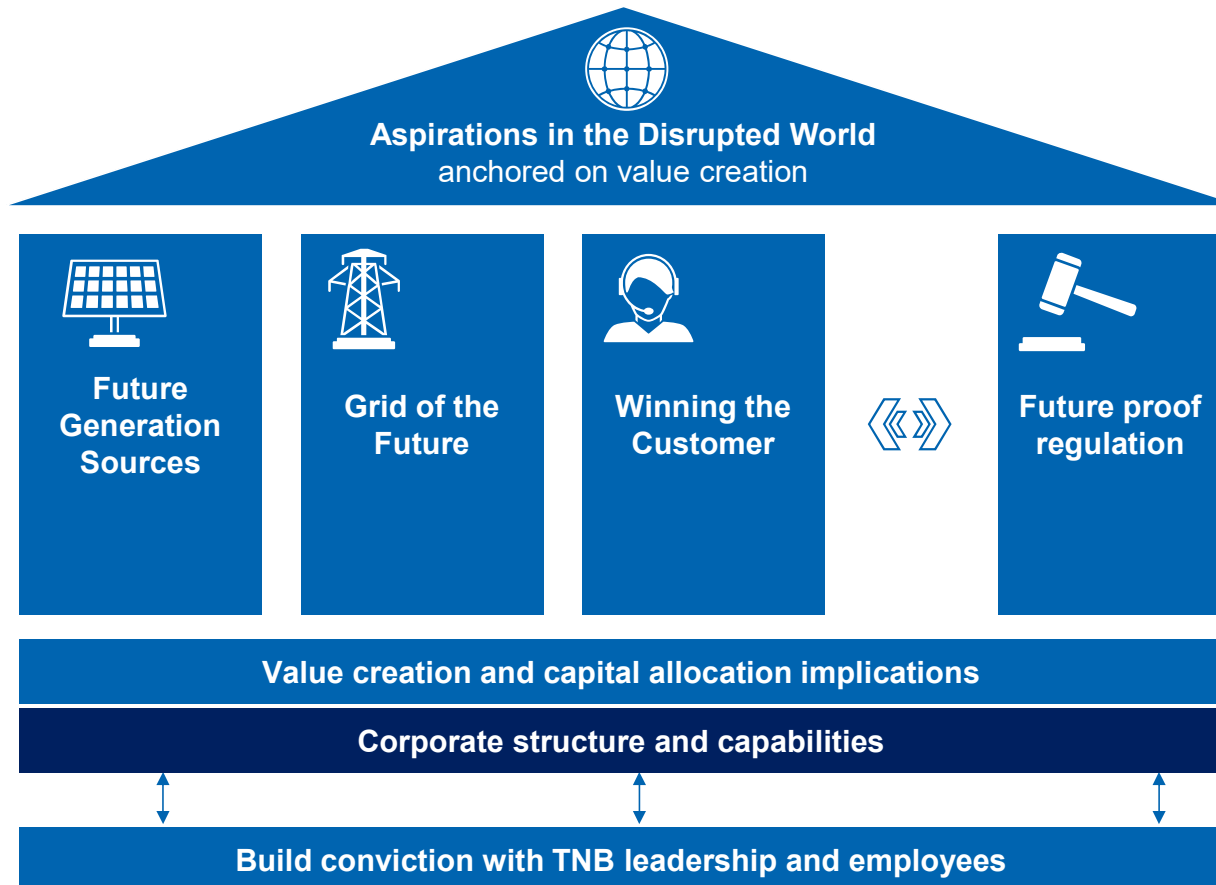
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FINANCIAL & TECHNICAL HIGHLIGHTS

# BUSINESS STRATEGY & DIRECTION

Reimagining TNB is TNB's strategic aspiration – a key enabler is the corporate structure



## BUSINESS STRATEGY & DIRECTION

International Acquisition - Four International Acquisitions to Support Aspiration



**30%**

Equity interest of GAMA Enerji A.Ş.

Assets include a 840MW natural gas-fired plant and 117.5MW wind plants



**30%**

Equity interest of GMR Energy Limited.

Assets include 2,298MW coal, gas and solar plants.

**Vortex Solar UK**

**50%**

Equity interest of Vortex Solar Investments S.a.r.l.

Assets include 24 operational solar PV Farm across England and Wales with net installed capacity of about 365MW

**Tenaga Wind Ventures**

**80%**

Equity interest of GVO Wind Limited & Blumerang Capital Limited

Assets include 53 operational onshore medium wind turbines with a total combined capacity of 26.1MW



# BUSINESS STRATEGY & DIRECTION

## Conventional Generation Projects



Coal

**Jimah East Power**

**2,000 MW**

**COD:**

U1: 22<sup>nd</sup> Aug 2019 (Completed)

U2: 15<sup>th</sup> Dec 2019

**Physical Progress: 99%**  
(Planned: 99%)

Gas

**Southern Power Generation**

**1,440 MW**

**COD:**

1<sup>st</sup> July 2020

**Physical Progress: 88%**  
(Planned: 88%)

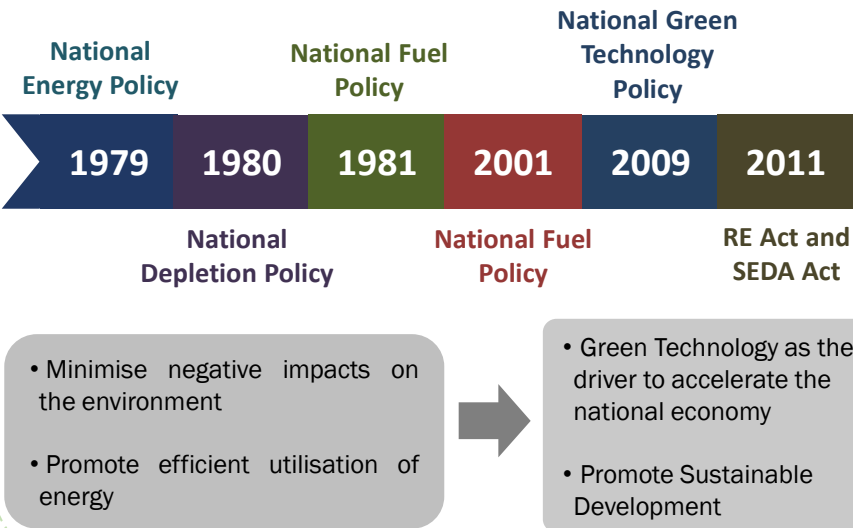
Note: Data as at June 2019



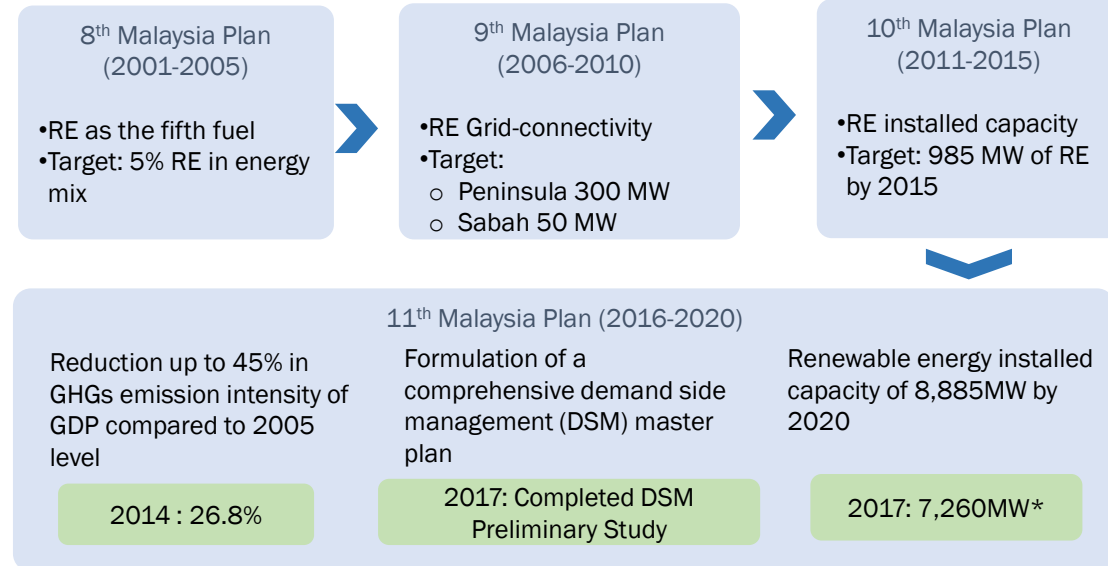
# BUSINESS STRATEGY & DIRECTION

## Renewable Generation - Government Green Policy & Initiatives

### Evolution on National Energy Policies



### Government Green Development Plan

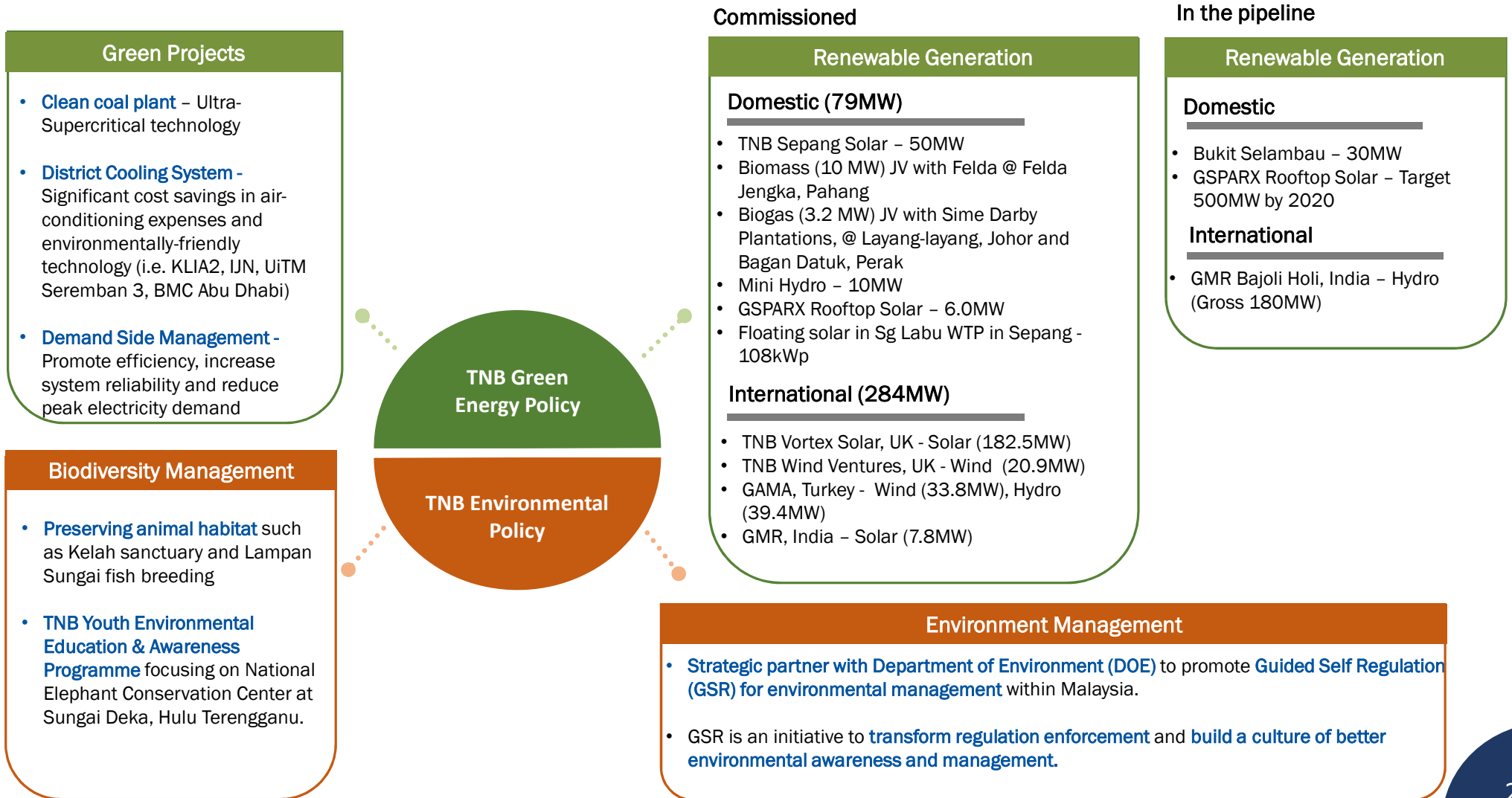


**NEW RE TARGET SET BY MESTECC**  
**20% of Total Installed Capacity**  
**by 2025**

MESTECC = Minister of Energy, Science, Technology, Environment and Climate Change

\* The increase in the total installed capacity of RE is based on the adoption of the ASEAN definition of RE by Malaysia in 2016 which takes into account all types of hydro energy in the calculation without limiting their capacities.

# BUSINESS STRATEGY & DIRECTION



# BUSINESS STRATEGY & DIRECTION

Building Renewable Energy Portfolio for Greener Future

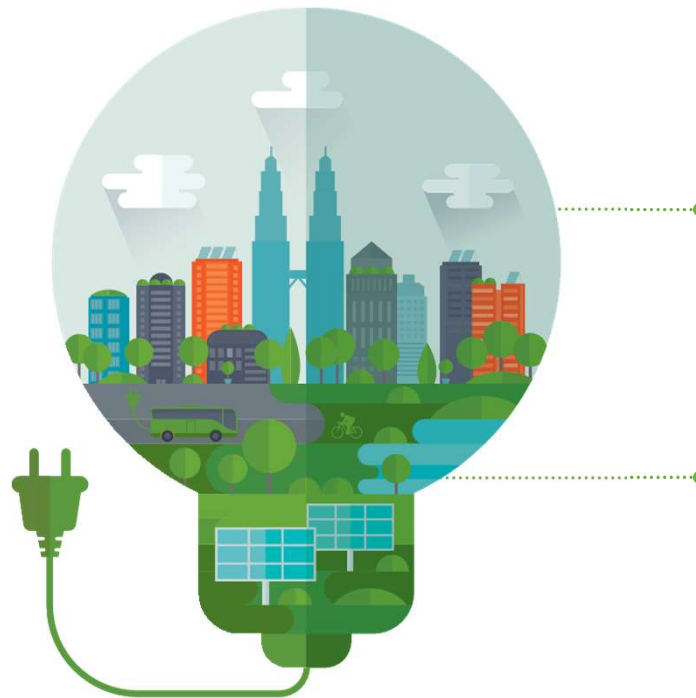
TNB RE Targets by  
2025

**1,700MW**

As at June 2019:

Total: 363MW

- International - 284MW
- Domestic - 79MW



## Large Scale Solar (LSS)

**TNB Sepang Solar**

**50 MW**

**COD: 19<sup>th</sup> Nov 2018  
(Completed)**

**TNB Bukit Selambau**

**30 MW**

**COD: 31<sup>st</sup> Dec 2020**

**Physical Progress: 41%**  
(Planned: 35%)

**Note:**

- i. PPA Tenure - 21 years
- ii. Data as at June 2019



# BUSINESS STRATEGY & DIRECTION

## Environmental, Social & Governance (ESG) – FY2018

### Environmental (E)

#### Strives To Conserve The Environment As Our Commitment Towards Continuous Environmental Improvement



50MW Large Scale Solar (LSS), **cut emissions** by approx. **64,000 tCO2e/year**, additional 30MW LSS to **further reduce emissions** after COD in Dec 2020



The latest coal generation plants using **ultra-supercritical technology** consume less **fuel per MWh electricity** produced in comparison to conventional coal power plant further contributing to **lower carbon emissions**.



**Reduction** in GHG emissions intensity from **0.55 to 0.54 tCO2e/MWh** (Data as at FY2017)



**Increase** in total GHG emissions mitigation from **2,359,770 to 5,030,079 tCO2e** through the used of hydro, renewable energy and efficient technology power plant. (Data as at FY2017)

### Social (S)

#### Our Pledge Towards A Better And Brighter Future For The Communities

- Allocated **RM10 million** for **1,000 students** from low-income families in the fields of Science, Technology, Engineering and Mathematics (STEM)
- 816 students** (596 local & 220 abroad universities) awarded Yayasan Tenaga Nasional (YTN) scholarship
- UNITEN produced **3,145 graduates with 93.7% employability rate** within 6 months
- 880 trainees** under **Government's PROTÉGÉ initiative**, compared to 500 trainees in FY2017
- 54 students** receive **RM1,500/year** (2018-2020) & are fully-sponsored to attend value-added self-development programmes
- TNB's contribution of **RM6 million** included sponsorships to the Malaysian Hockey Confederation

### Governance (G)

#### Cultivate Ethical Conduct To Reinforce Sound Business Decisions & Forward-Looking Culture

Leadership & Effectiveness

Statement on Risk Management & Internal Controls

Accountability

Relations With Shareholders



Obtained **ISO 37001:2016** Anti Bribery Management System certification

# BUSINESS STRATEGY & DIRECTION

## Green Energy Development

### ❑ **UNITEN's Smart UniverCity**

- ✓ To create a sustainable ecosystem which provide competitive advantage for TNB in moving into smart city environment.



### ❑ **Expansion of Electric Vehicle Charging Network**

- ✓ To expand the existing charging station infra (around 250 stations) under the ChargeEV programme (managed by MGTC).



### ❑ **Green House Gas Emission Management System (GEMS)**

- ✓ To develop an online system to record and analyse raw emission data from TNB assets



### ❑ **Maverick - Showcase of Net Zero Energy of Net Zero Energy Home**

- ✓ To generate own electricity through Net Zero Energy Home Living at Cyberjaya



### ❑ **Introduction of Electric Buses for UNITEN**

- ✓ The project aims to develop a feasible business model for the operation of electric buses within the campus, such as vehicle leasing between the Fleet Management and UNITEN.



### ❑ **Smart Street Light Showcase Project at UNITEN Putrajaya Campus**

- ✓ This project enables TNB to demonstrate its commitment towards Green Technology.



### ❑ **TNB Centre of Excellence (CoE) for Solar Energy at the Large Scale Solar (LSS) site in Sepang**

- ✓ The CoE will become a training centre for solar energy development and technology, catering for TNB employees and external participants from public and private sectors



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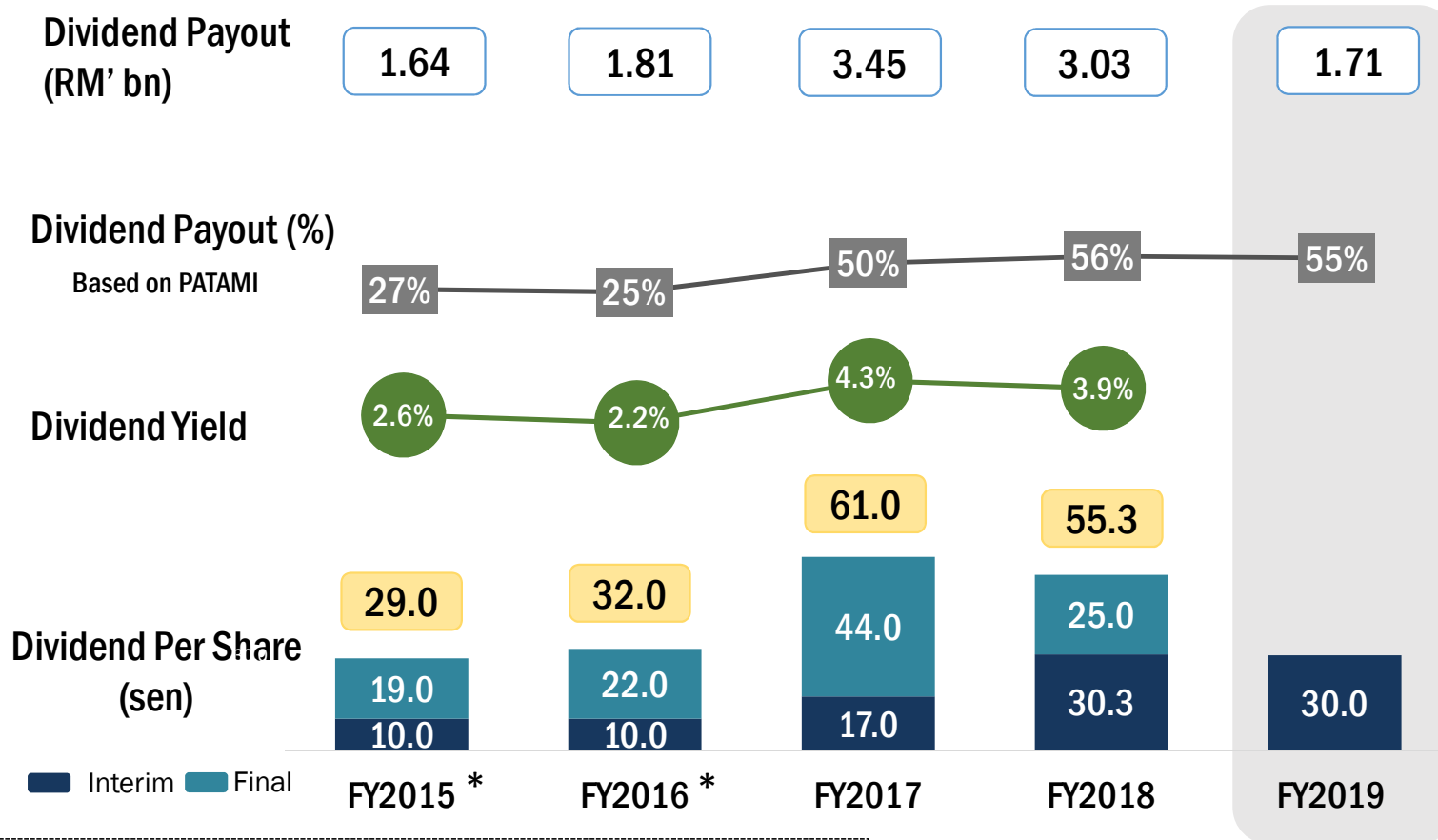
CAPITAL MANAGEMENT

05

FINANCIAL & TECHNICAL HIGHLIGHTS

## CAPITAL MANAGEMENT

Highest Dividend Payout at 56% of Adjusted PATAMI



### DIVIDEND POLICY

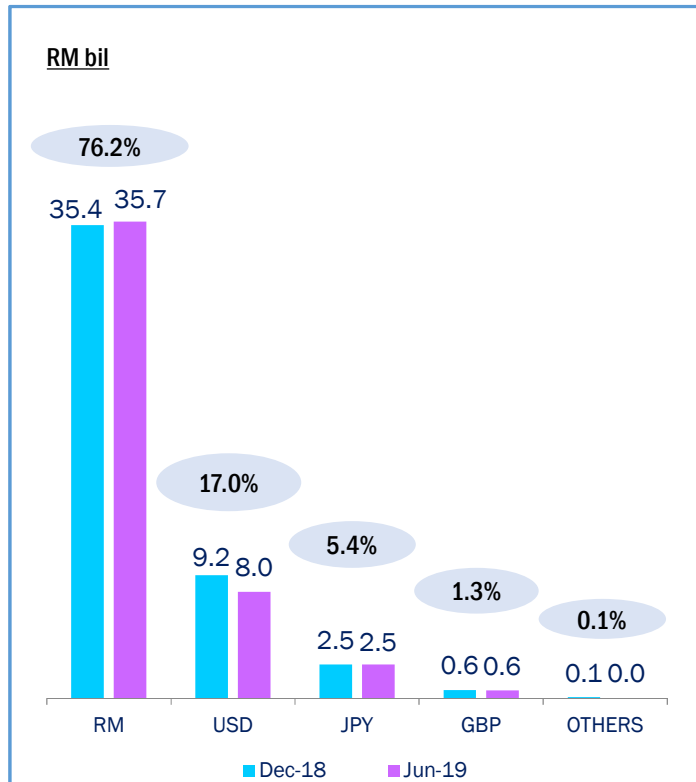
30% - 60% dividend payout ratio of Group PATAMI, excluding Extraordinary, Non-Recurring items

\* Dividend paid based on the previous dividend policy of 40% - 60% of Company's Annual Free Cashflow from Operations less Normalised Capex and Interest Servicing



# CAPITAL MANAGEMENT

## Lower Gearing Level due to Repayment of Mizuho Loan



Note:  
Debt consists of Principal + Accrued Interest + Accounting Treatment (FRS139)

Statistics	30 <sup>th</sup> Jun'19	31 <sup>st</sup> Dec'18
Total Debt (RM' bil)	1 46.8	47.8
Net Debt (RM' bil)*	31.0	29.6
Gearing (%)	43.9	44.8
Net Gearing (%)	29.1	27.7
Fixed : Floating	98:2	95:5
Final Exposure	98:2	95:5
Weighted Average Cost of Borrowing	2 5.03	4.98
Final Exposure **	5.04	4.99

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

\*\* Inclusive of interest rate swap

Cash Position (RM bil)	30 <sup>th</sup> Jun'19	31 <sup>st</sup> Dec'18	Closing FOREX	30 <sup>th</sup> Jun'19	31 <sup>st</sup> Dec'18
Company	9.7	11.0	USD/RM	4.14	4.14
Group	15.8	18.2	100YEN/RM	3.84	3.75
			GBP/RM	5.24	5.27
			USD/YEN	107.62	110.28

1 Lower mainly due to repayment of Mizuho Loan (USD300mil) amounting of RM1.2bil

2 Increase due to repayment of Mizuho Loan with lower interest rate

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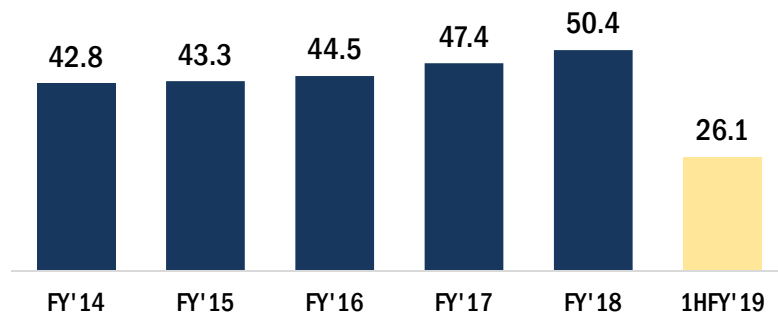
05

FINANCIAL & TECHNICAL HIGHLIGHTS

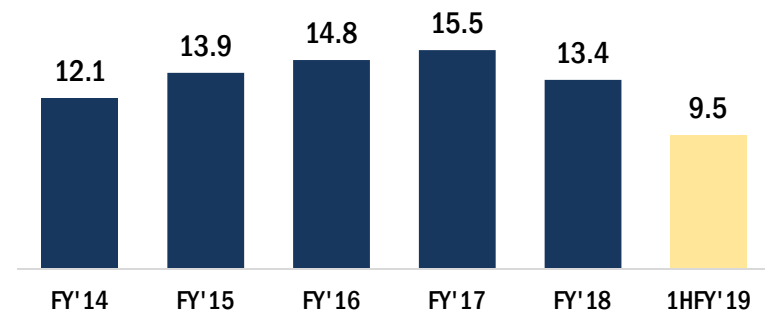
# FINANCIAL & TECHNICAL HIGHLIGHTS

Steady Financial Results Continued into 1HFY'19

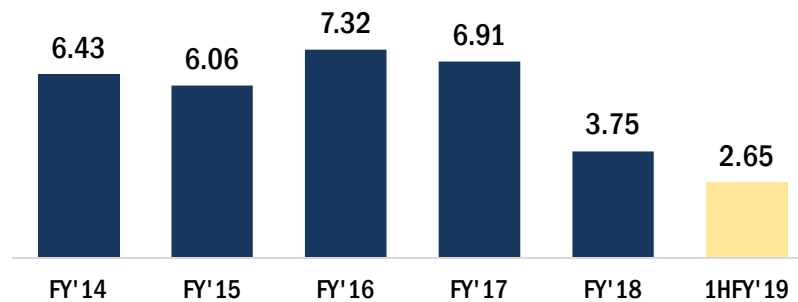
Revenue (RM bil)



EBITDA (RM bil)



PAT (RM bil)

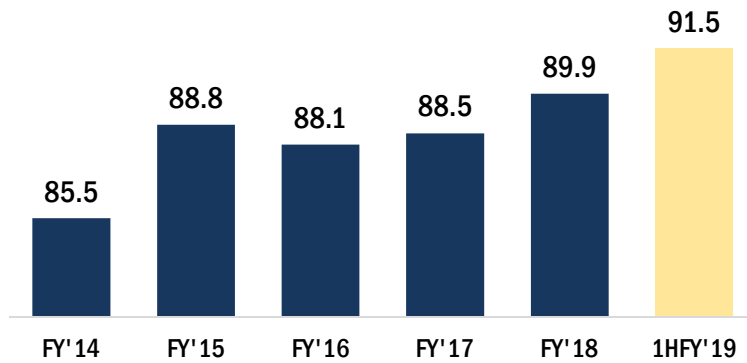


Note: FY2019 is after MFRS16 implementation

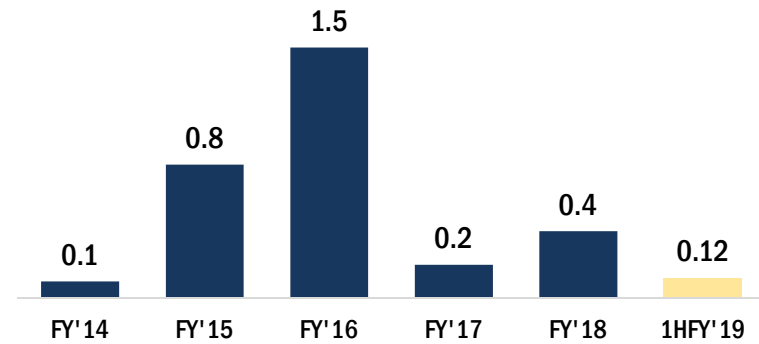
# FINANCIAL & TECHNICAL HIGHLIGHTS

## Consistent Technical Performances

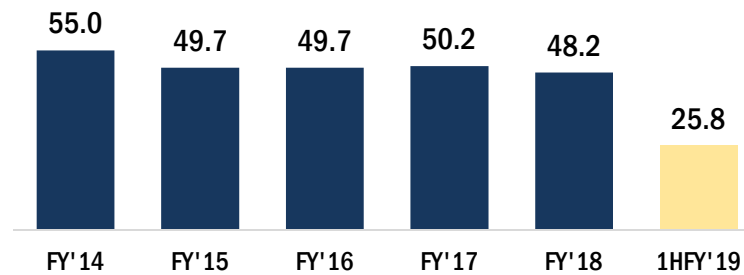
EAF (%)



Transmission System Minute (mins)



Distribution SAIDI (mins)



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