TNB HANDBOOK

ASEAN CONFERENCE, TAIPEI

22nd - 23rd MARCH 2016

UOBKayHian

1QFY'16

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GROUP FINANCE DIVISION

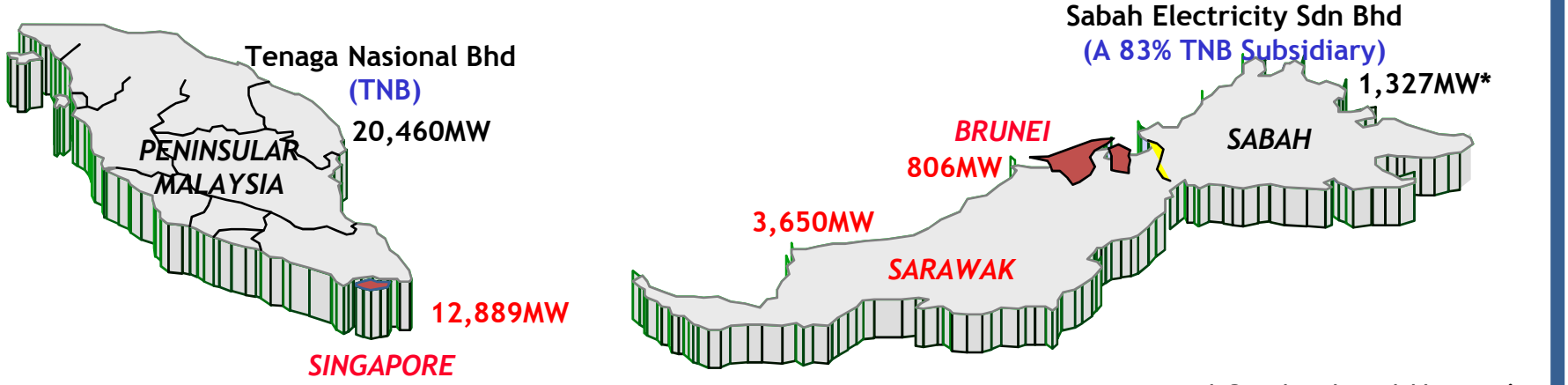
AGENDA

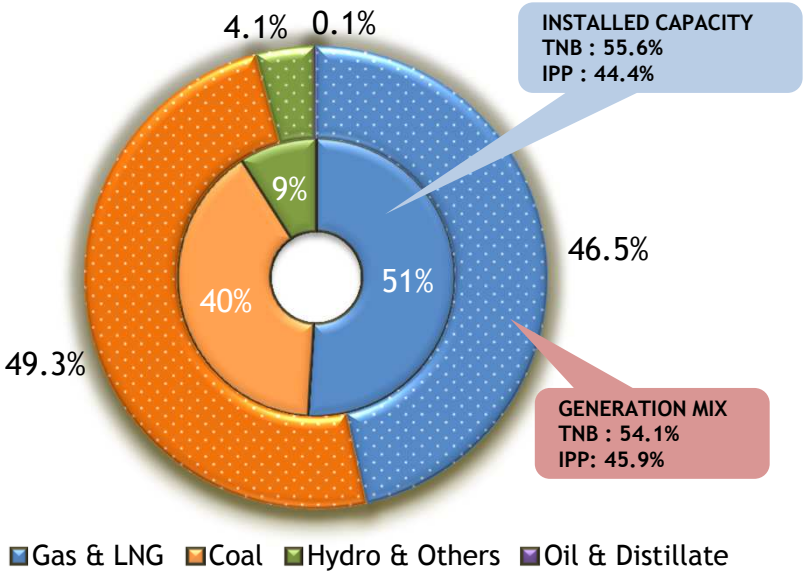
PART ONE

1. INTRODUCTION TO TENAGA
2. INTRODUCTION TO MESI
3. SUSTAINABILITY – GREEN POLICY & INITIATIVES
4. TARIFF
5. KEY PERFORMANCE INDICATORS (KPIs)
6. BUSINESS STRATEGY & DIRECTION
7. DEBT EXPOSURE & GEARING
8. DIVIDEND POLICY

INTRODUCTION TO TENAGA

Three Major Utilities in Malaysia



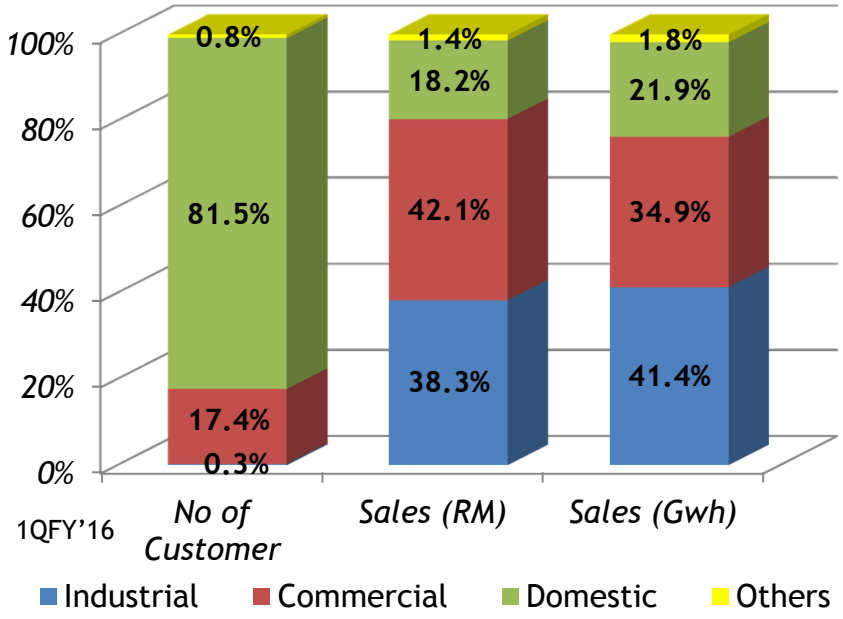


Peninsula Installed Capacity vs. Generation mix

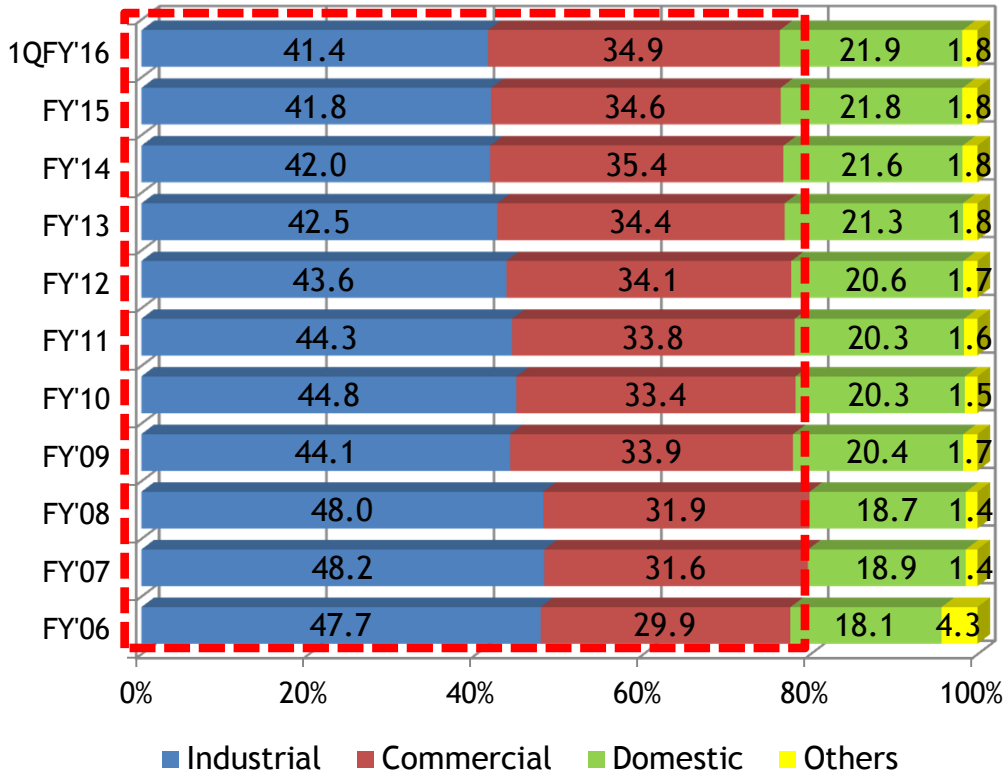
	FY'12	FY'13	FY'14	FY'15	1QFY'16
TNB - Peninsula Installed Capacity (MW)	11,462	11,462	10,814	11,708	11,384
Total units sold (Gwh)	102,132	105,479	108,102	110,837	28,571
Total customers (mn)	8.36	8.35	8.64	8.94	9.02
Total employees ('000)	33.6	35.0	36.1	36.0	35.9
Total assets (RM bn)	88.5	99.0	110.7	117.1	117.5

INTRODUCTION TO TENAGA

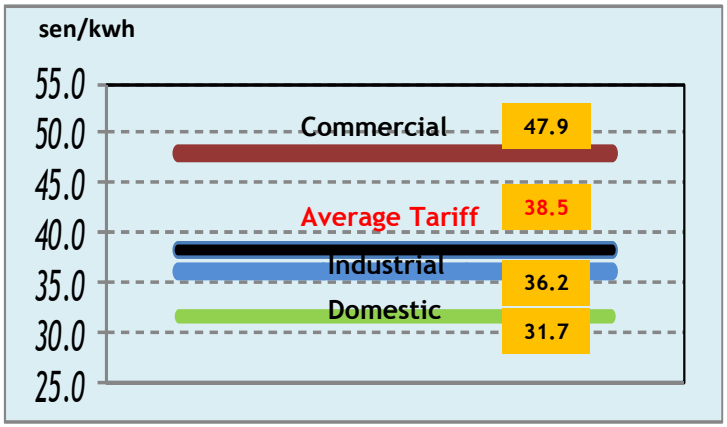
No of Customer vs. Sales Value vs. Unit Sales



Sectoral Sales Analysis (Gwh)



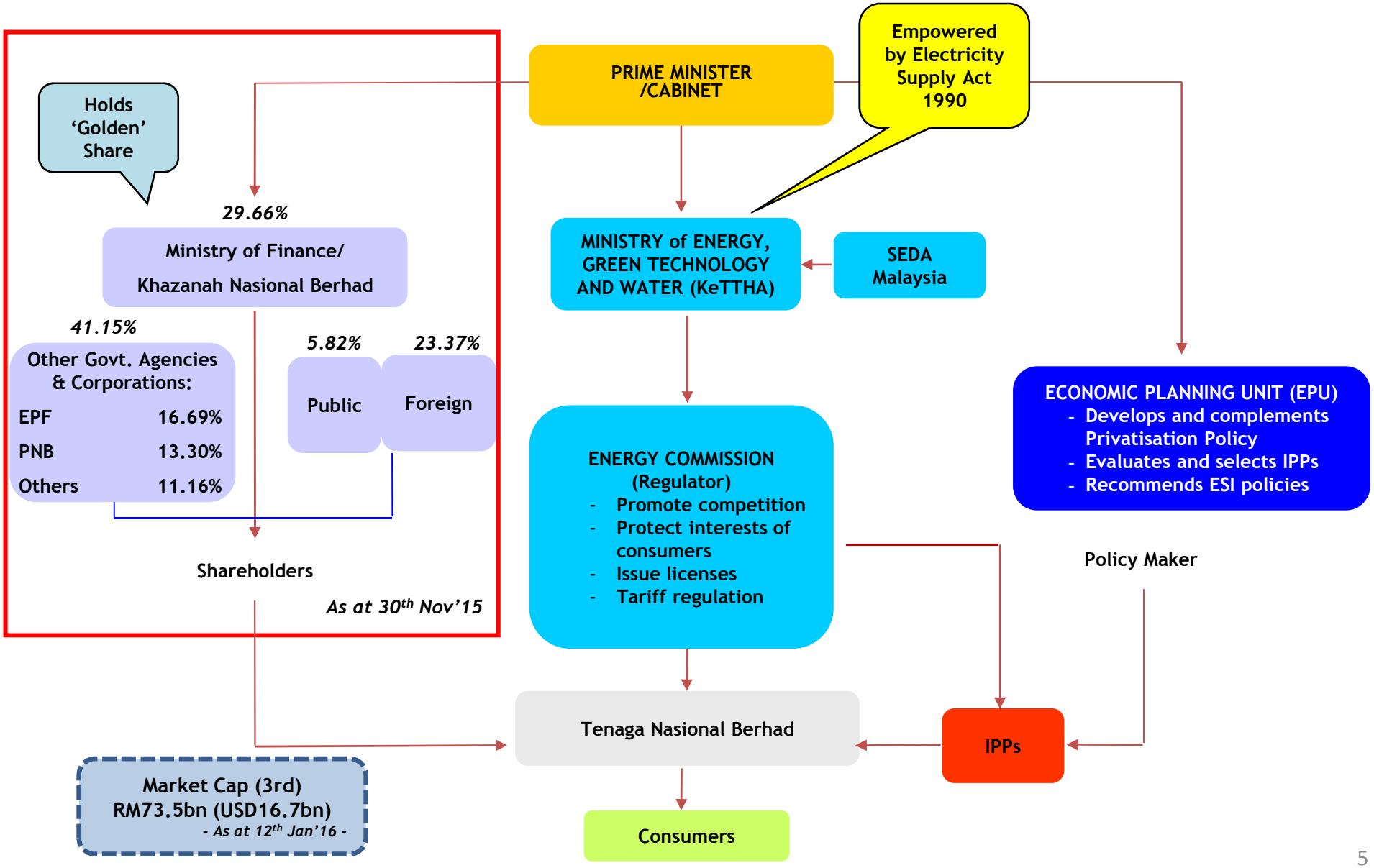
Average Base Tariff by Sector



- Shift from Industrial-based to Service-based economy
- Increasing market share from Commercial sector
- Commercial sector contributes the highest electricity sales margin

INTRODUCTION TO TENAGA

Industry Regulatory Framework



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TRANSFORMATION INITIATIVES BY GOVERNMENT

Aimed at Delivering a Reliable, Transparent, Efficient and Sustainable ESI

New Energy Policy

1. Energy Pricing
2. Energy Supply
3. Energy Efficiency
4. Governance
5. Change Management

Jun - Dec 2008
Khazanah's MESI Study

Jan - Dec 2009
KeTTHA-led syndication

4 Dec 2009
Cabinet endorsement to transform ESI

Transformation Programme

A. Governance

1. Agency Roles
2. Ring-fencing

B. Market Structure

3. Competitive Bidding
4. PPA Renegotiation

C. Fuel Supply and Security

5. Fuel Supply and Security

D. Tariff

6. Value Chain Tariff
7. End User Tariff
8. Stabilization Fund
9. Accounts Unbundling

- 1st Gen IPP / Restricted Bidding
- Subsidy Rationalisation Programme
- FCPT Mechanism
- LNG Importation
- Nuclear Energy Capacity Building
- National RE Policy & Action Plan
- FIT & RE Fund
- Legal & Regulatory Framework Enhancement

*Source: MyPower

1 ENERGY PRICING – COMPETITIVE BIDDING

Track 1, 2 & 3A

1

TRACK 1	1,071 MW CCGT PRAI (PRAI)
COD	February 2016
LEVELISED TARIFF	34.7 sen/kWh
STATUS	TNB has signed agreements for: i. EPC – TNB Northern Energy Bhd & Samsung Engineering & Construction (M) Sdn Bhd ii. Long term Service – TNB Prai & Siemens AG iii. O&M – TNB Prai & REMACO TNB Northern Energy Sukuk has been issued out on 29 May 2013 for nominal value of RM1.625 billion.
PHYSICAL PROGRESS	99% as at 1QFY'16
TECHNOLOGY	Siemens Super Critical H-Class technology gas turbine combined-cycle efficiency of greater than 60%

2

TRACK 2	RENEWAL OF EXPIRING PLANTS : 2,253 MW CCGT		
PLANTS	GENTING	SEGARI	TNB PASIR GUDANG
EXTENSION	10 years (to 2026)	10 years (to 2027)	5 years (to 2022)
LEVELISED TARIFF	35.3 sen/kWh	36.3 sen/kWh	37.4 sen/kWh
STATUS	Reduction rates of CP effective 1 March 2013 until expiry of current PPA		

Track 2 savings balance: approximately RM1.0 bn

(as at end 2015)

3

TRACK 3A	1 X 1,000 MW COAL-FIRED (MANJUNG 5)
COD	October 2017
LEVELISED TARIFF	22.78 sen/kWh
STATUS	TNB has signed agreements on 16 August 2013 for: i. PPA with TNB Manjung Five Sdn Bhd "Manjung 5" to design, construct, own, operate & maintain the coal plant capacity (25 years term) ii. SFA "Shared Facilities Agreement" between TNB, Manjung 5 & TNB Janamanjung iii. CSTA "Coal Supply and Transportation Agreement" between TNB Fuel Services & Manjung 5. EPC contract signed on 21 August 2013 between: TNB Western Energy Bhd; a wholly owned subsidiary of Manjung 5 with Consortium of Sumitomo Corp, Daelim Industrial Co Ltd, Sumi-Power M'sia Sdn Bhd and Daelim M'sia Sdn Bhd. TNB Western Energy Sukuk has been issued out on 30 January 2014 for nominal value of RM3.655 billion.
PHYSICAL PROGRESS	73% as at 1QFY'16
TECHNOLOGY	Ultra Super Critical Boiler Technology OEM to EPC is Hitachi

1 ENERGY PRICING

Track 3B & 4A

4

TRACK 3B	2 X 1,000 MW COAL-FIRED (JIMAH EAST)
COD	15 June 2019 & 15 December 2019
LEVELISED TARIFF	26.67 sen/kWh
STATUS	TNB has signed agreements on 22 July 2014 : i. PPA with Jimah East Power Sdn. Bhd. (JEP), the incorporated company of the consortium of 1MDB and Mitsui & Co. Ltd, to design, construct, own, operate and maintain the coal plant (25 years term) at Mukim Jimah, Port Dickson, Negeri Sembilan. ii. CSTA "Coal Supply and Transportation Agreement" with TNB Fuel Services Sdn. Bhd. TNB received a letter of invitation from the EC on 19 June 2015 to submit a proposal pertaining to the participation of TNB through 70% ownership of JEP. TNB received an addendum to the Letter of Award dated 3 June 2014 for the Project from the EC informing TNB and Mitsui that the Government has approved the transfer by 1MDB of its entire shareholding interest in JEP to TNB. TNB has submitted the Letter of Acceptance on 3 July 2015 to the EC's Addendum to the Letter of Award which was issued to TNB. TNB entered into a Share Sale and Purchase Agreement with 1MDB on 3 July 2015 for the acquisition of a 70% shareholding in JEP for a total consideration of circa RM46.98 million. On 26 August 2015, TNB has signed a Supplemental Power Purchase Agreement with JEP.
TECHNOLOGY	2 units of IHI Ultra Super Critical Technology Steam Generator & 2 Units of Toshiba Turbo Generator

5

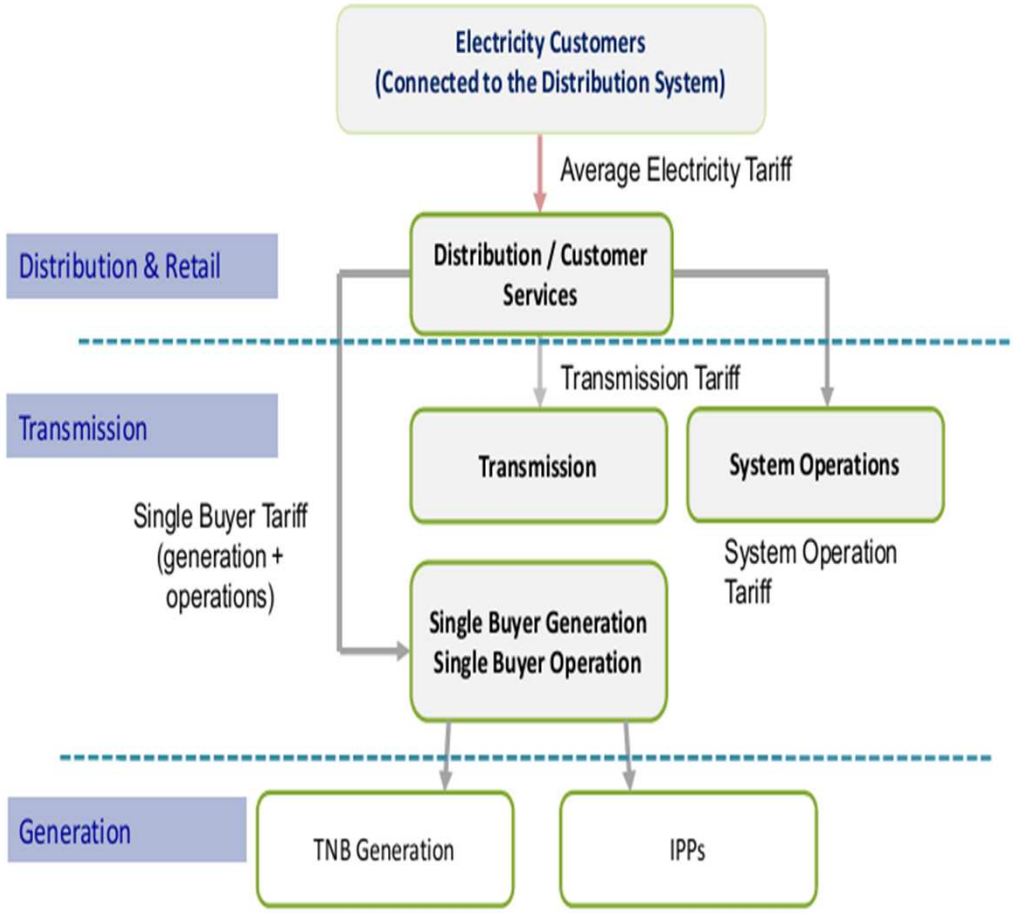
TRACK 4A	1,000 - 1,400 MW CCGT
COD	June 2018
STATUS	TNB has signed heads of agreement on 24 July 2014 with SIPP Energy Sdn. Bhd., signifying the principal terms of the proposed joint venture which will undertake to build, own and operate a power plant of approximately 1,000MW-1,400MW on a land in Pasir Gudang, Johor. EC has informed that the proposal submitted on 15 May 2015 by the Consortium to develop the Project was not accepted as the levelised tariff could not meet the terms of EC's Conditional Letter of Award. Following the decision made by EC, the Heads of Agreement had lapsed and TNB ceased to be part of the Consortium.
TECHNOLOGY	-

3 + 4 EFFICIENCY AND GOVERNANCE

Incentive Based Regulation (IBR) – The Move Towards Better Regulation

IBR mechanism to strengthen the following:

- The Economic Regulatory Framework for Regulating TNB
- The Tariff Setting Mechanism and Principles for Tariff Design
- Incentive Mechanisms to Promote Efficiency and Service Standards
- The Process of Tariff Reviews
- Creation of Regulatory Accounts and Its Annual Review Process



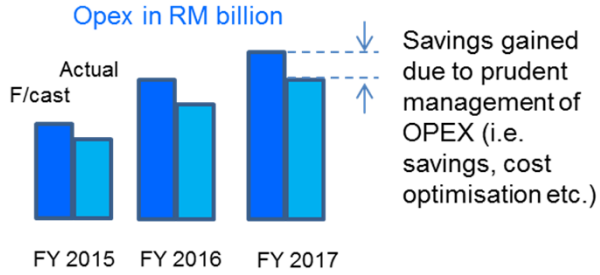
5 Business entities under IBR (Accounting Separation)

11 Regulatory Implementation Guidelines (RIGS) were Developed for IBR Implementation

**Source: EC*

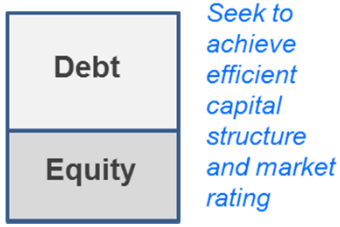
3 + 4 EFFICIENCY AND GOVERNANCE

Incentive Based Regulation (IBR) - Economic Regulation Methodology to Promote Efficiency And Transparency



Operational Efficiencies

- Rewarded for seeking efficiencies in operational and capital expenditure

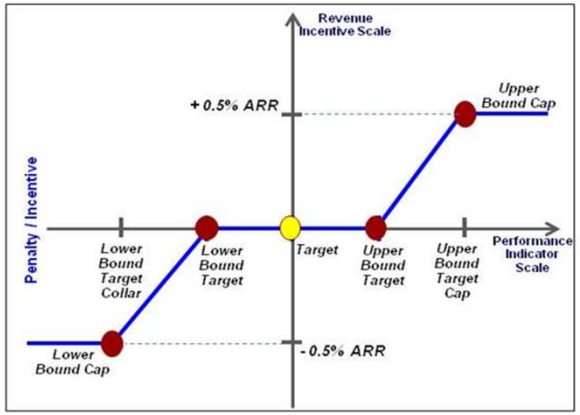


Seek to achieve efficient capital structure and market rating

Weighted Average Cost of Capital (WACC)

Financial Efficiencies

- Rewarded for maintaining an efficient capital structure



Performance Efficiencies

- Rewarded for delivering improvements in network performance

3 + 4 EFFICIENCY AND GOVERNANCE

Regulatory WACC for TNB under IBR (FY2014 – 2017) is 7.5%

WACC Parameters	Actual market Parameters	TNB's Proposal	Recommendation
Stock $_{TNB}$ Beta	0.92[1]	1.435	1.435 [[4]
Market Return (R_m)	8.8%[2]	12.3%	8.8%
Risk free (R_f)	4.0%	4.0%	4.0%
Market Risk Premium (R_m - R_f)	4.8%	8.3%	4.8%
Debt Margin (D_m)	2.19%	2.24%	2.24%
Tax Rate	25.0%	25.0%	25.0%

Weighted Cost of Capital Calculation

	Actual market Parameters			TNB's Proposal			Recommendation		
Capital Structure	Cost	Capital Structure	Weighted Cost	Cost	Capital Structure	Weighted Cost	Cost	Capital Structure	Weighted Cost
Cost of Equity (K_e)	8.38%	60.5%	5.1%	15.91%	45.0%	7.16%	10.85%	45.0%	4.88%
Cost of Borrowing (K_b)[3]	6.18%	39.5%	1.8%	6.24%	55.0%	2.57%	6.24%	55.0%	2.57%
Weighted Cost of Capital			**6.9%**			**9.7%**			**7.5%**

Note:

[1] Based on beta for the period 2004-2012

[2] R_m - Market return of 10 yrs KLSE Index

[3] Average Gearing (2004-2011) is 39.5%

[4] Adjusted to reflect optimal gearing.

**Source: EC*

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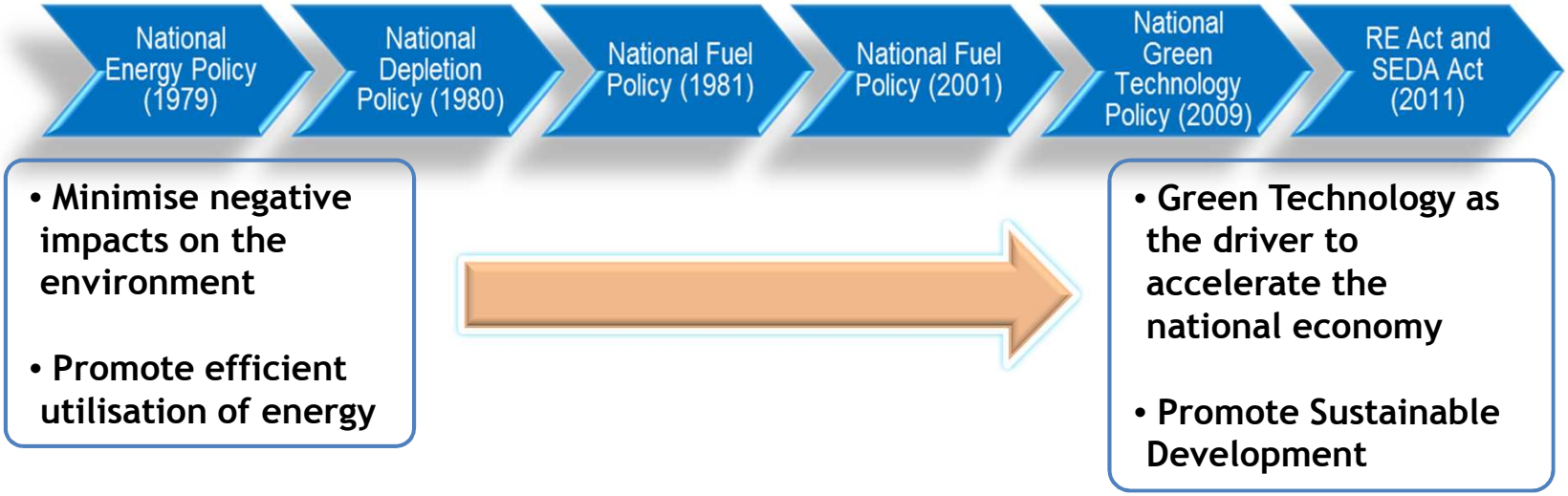
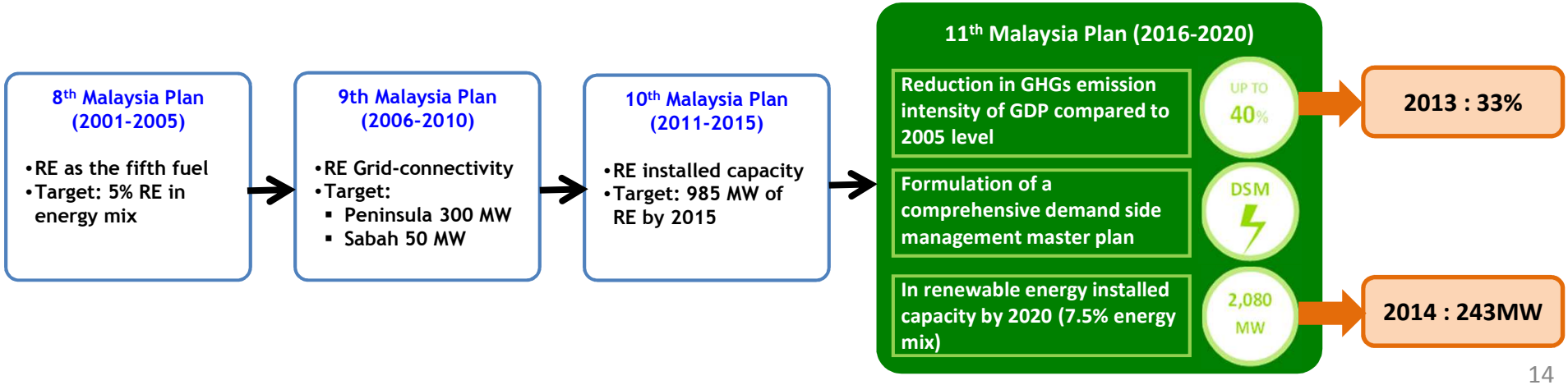
SUSTAINABILITY

Government Green Policy & Initiatives

Evolution on National Energy Policies



Government Green Development Plan



SUSTAINABILITY

Government Green Policy & Initiatives

Government Green Initiatives

SEDA and RE Act (2011)

- Enhance the utilisation of indigenous renewable energy (RE) resources to contribute towards national electricity supply security and sustainable socioeconomic development.
- Establish RE Fund to expand RE generation.

KeTTHA's SAVE Program

- Create a culture of efficient energy usage among general public and business entities.
- Targets the final end user through the retailers of electronic appliances and will generate up to 7,300 GWh of energy saved by the year 2020.

Government Investment Tax Allowance (ITA) scheme

- Encourage Energy Efficiency among Industry & commercial users.

Strengthening governance to drive green transformation

- Electricity Supply Act 2001.
- Efficient Management of Electrical Energy Regulations 2008.
- Uniform Building By Law (UBBL) & ISO150001.

SUSTAINABILITY

TNB Green Policy & Initiatives

TNB Green Policy

"TNB is committed to support the national green agenda and minimise the environmental impact of our business by applying sustainable, efficient operations and delivering green energy through the application of appropriate technologies and investments"

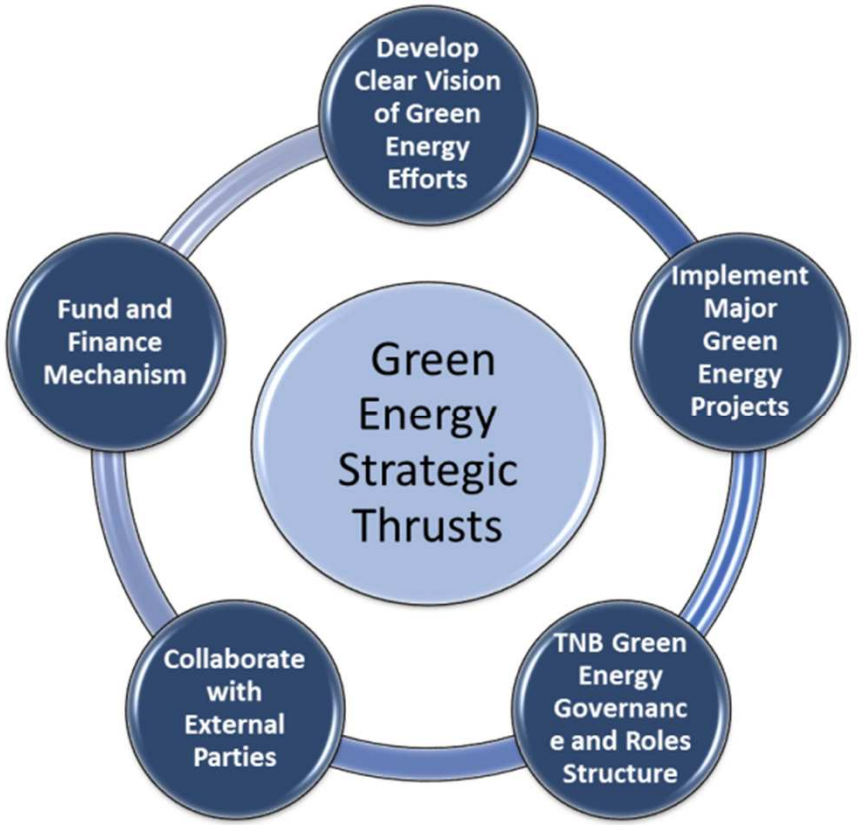
TNB RE Targets by 2020

Domestic

- 60-80% of national targets by 2020 (1,248 -1,664 MW)

International

- In accordance to TNB Investment policy and guidelines on ventures, M&A and bidding for Green Energy Projects



SUSTAINABILITY

TNB Green Policy & Initiatives

TNB Green Initiatives

Major Green Projects

1)Ultra-supercritical technology for coal plants
- 10% less CO2 emission compared to conventional subcritical technology

2)Carbon footprint study - supply side (2012)
- Preliminary assessment of Carbon Inventory for TNB Thermal Power Plants
- Recommendation on the most suitable methodology of measuring Carbon Footprint for TNB power plants

3)R&D projects for enhancing power plants efficiency

4)Smart Grid (SG) Project

5)Various District Cooling (DCS) & Thermal Energy Storage (TES) projects

Renewable Energy Projects

1)Non FiT and Off-grid installation:
- Solar Hybrid project
  - 850kW in RPS Kemar, Perak.

2)FiT projects:
- JV project with Felda Global Ventures
  - 10MW Biomass (Jengka)
- JV with Sime Darby
  - 2MW Biogas Hadapan Palm Oil Mill
  - 2MW Remington Palm Oil Mill
- JV with Amcorp Power Sdn Bhd
  - 20MW Mini Hydro at Sg Liang, Pahang
- Floating solar pilot project in Negeri Sembilan

Demand Side Management (DSM) Programs

- Special tariff rates for DCS & TES
- Thermal energy storage
- DSM study on Enhanced Time of Use (ETOU) & interruptible scheme
- Development of training & capacity building centres
- Pilot Electric Vehicles (EV) charging terminal

Energy Efficiency (EE) Programs

- Energy audits & power quality services by TNB Energy Services, a subsidiary of TNB
- Pilot Home Energy Report (HER) Programme
- TNB EE Managers Programs
- TNB EE campaigns
- TNB participation in EE awareness programs

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TARIFF

Electricity Tariff Review = Base Tariff + Imbalance Cost Pass-Through (ICPT)

Imbalance Cost Pass-Through (ICPT):

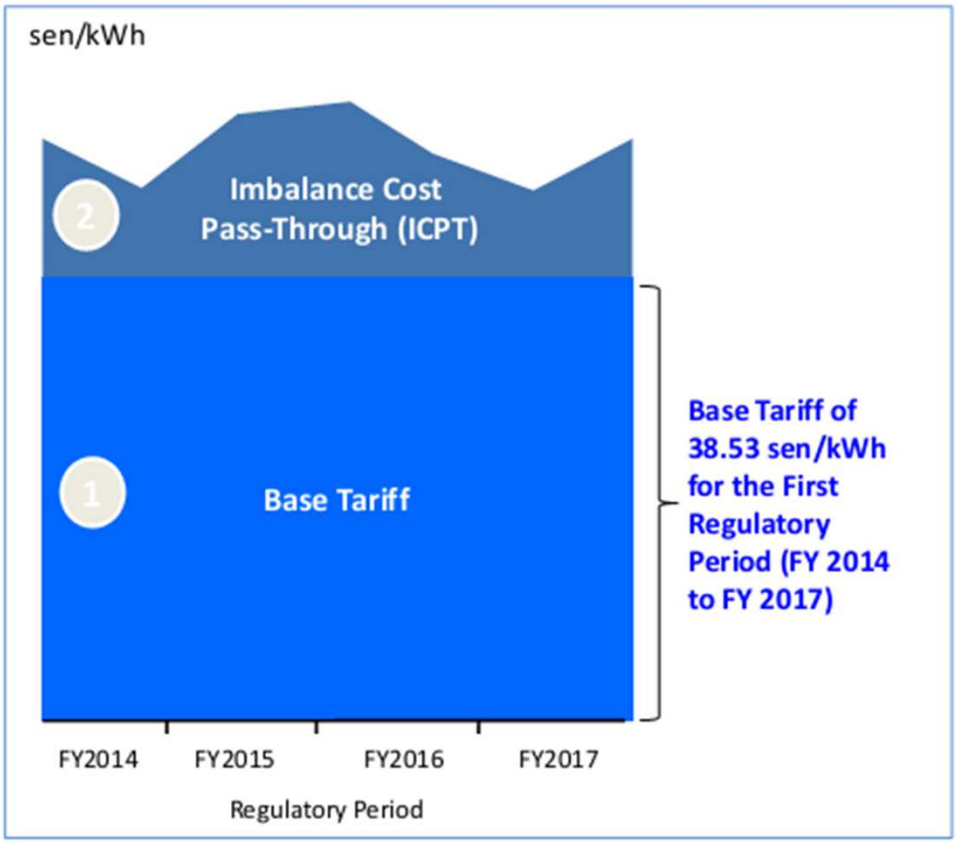
- Tariff adjustment to reflect uncontrollable fuel costs and other generation costs (difference between forecast and actual cost of procuring electricity that is beyond the control of utility)

Base Tariff under IBR framework reflects:

a) CAPEX and OPEX of
- transmission, distribution, system operation (SO) and single buyer operation (SB)

b) Power purchase cost charged by generators (including base price for fuel) to the SB

c) Return on regulated asset (rate base) of transmission, distribution, SO and SB business units



Principle for ICPT Calculation

Cost components comprise of:

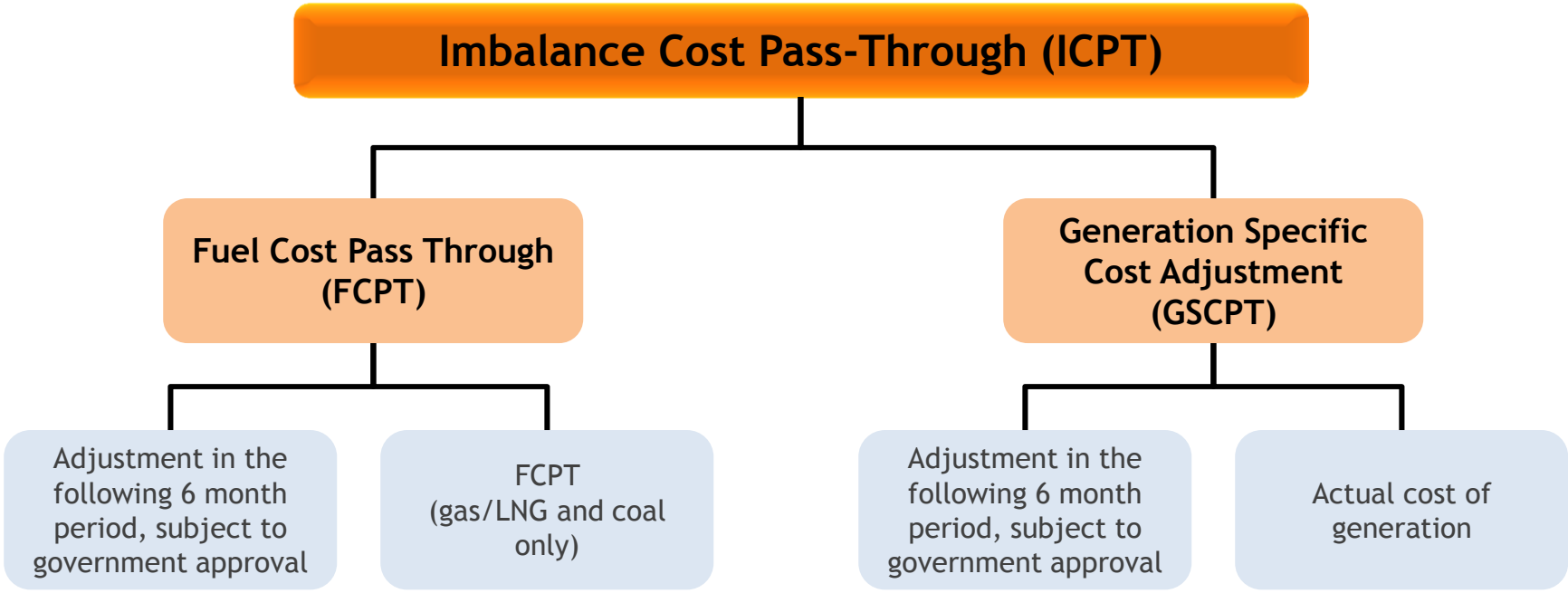
- Actual vs forecast cost of fuels & other generation costs for the preceding 6-month period; and
- Piped gas price increase of RM1.50/mmBtu for the next 6-month period

Note 1 : CAPEX = Capital expenditure
2 : OPEX = Operational expenditure

Source: EC

TARIFF

Imbalance Cost Pass-Through (ICPT) Comprises Two Components



Changes in gas/LNG and coal costs

Changes in:

- Other fuel costs such as distillate and fuel oil
- All costs incurred by SB under the power procurement agreements (PPAs, SLAs and etc.) and fuel procurement agreements (CSTA, CPC, GFA/GSA and etc.)
- Renewable energy FiT displaced cost

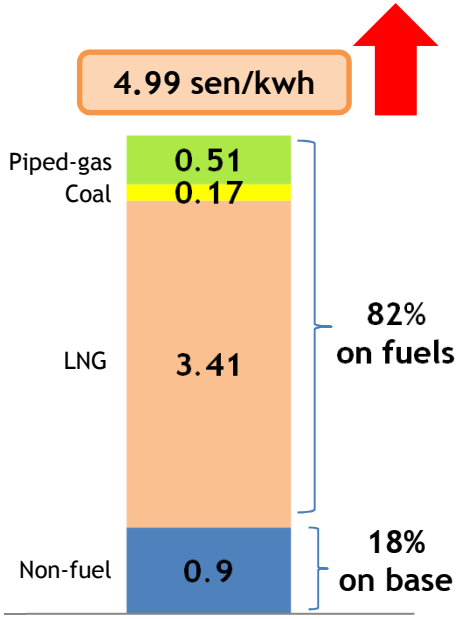
PPAs	Power Purchase Agreements
SLAs	Service Level Agreements
CSTA	Coal Supply and Transportation Agreement
CPC	Coal Purchase Contract
GFA	Gas Framework Agreement
GSA	Gas Supply Agreement

ICPT	Announcement	Rebate	Period
Jan - Dec'14	RM727 mn	2.25sen/kwh	Mar - Jun'15
Jan - Jun'15	RM1,086 mn	2.25sen/kwh	July - Dec'15
Jul - Dec'15	RM762 mn	1.52sen/kwh	Jan - Jun'16

TARIFF

Average Base Tariff of 38.53 sen/kwh is Effective from 1st January 2014

Tariff Components	sen/kWh	% increase
Average Tariff (Jun 2011)	33.54	
Fuel Components:		
• Piped-gas regulated price (from RM13.70/mmBTU to RM15.20/mmBTU @1,000 mmscfd)	0.51	1.52
• Coal (market price) (from USD85/tonne to USD87.5/tonne CIF@CV 5,500kcal/kg)	0.17	0.51
• LNG RGT market price at RM41.68/mmBTU (for gas volume > 1,000 mmscfd)	3.41	10.17
Non-fuel component (TNB Base Tariff)	0.90	2.69
AVERAGE BASE TARIFF EFFECTIVE 1st JANUARY 2014	**38.53**	**14.89**



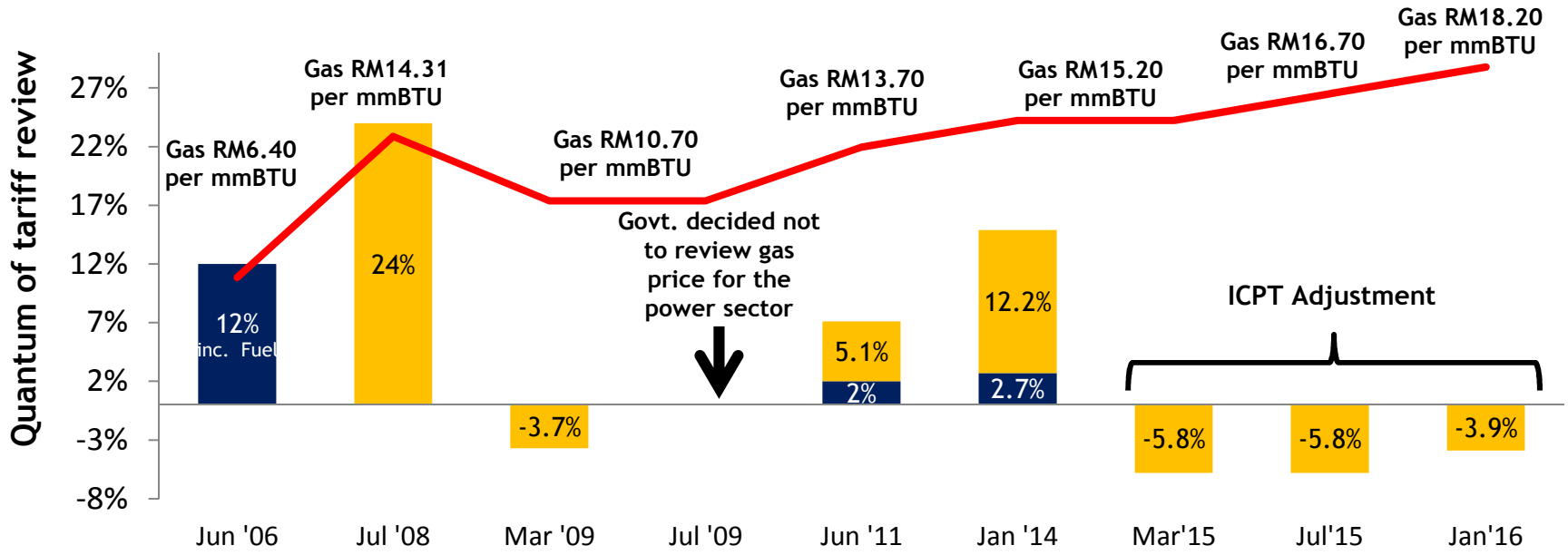
TARIFF

Frequency of Review & Underlying Assumptions

IBR

ICPT

Approval date	May 2006	Jun 2008	Feb 2009	Jun 2009	May 2011	Dec 2013	Feb 2015	Jun 2015	Dec 2015
Effective date	Jun 2006	Jul 2008	Mar 2009	Jul 2009	Jun 2011	Jan 2014	Mar 2015	Jul 2015	Jan 2016
Quantum	12%	23 - 24%	(3.7%)	Neutral	7.1%	14.9%	(5.8%)	(5.8%)	(3.9%)
Gas (RM/mmbtu)	6.40	14.31	10.70	10.70	13.70	15.20	15.20	16.70	18.20
Coal (USD/MT)	45.00	75.00	85.00*	85.00*	85.00*	87.50**	87.50**	87.50**	87.50**
Average Tariff (sen/kWh)	26.2	32.5	31.3	31.3	33.5	38.5	38.5	38.5	38.5



* Forex (RM/USD) = RM3.6

**Forex (RM/USD) = RM3.14

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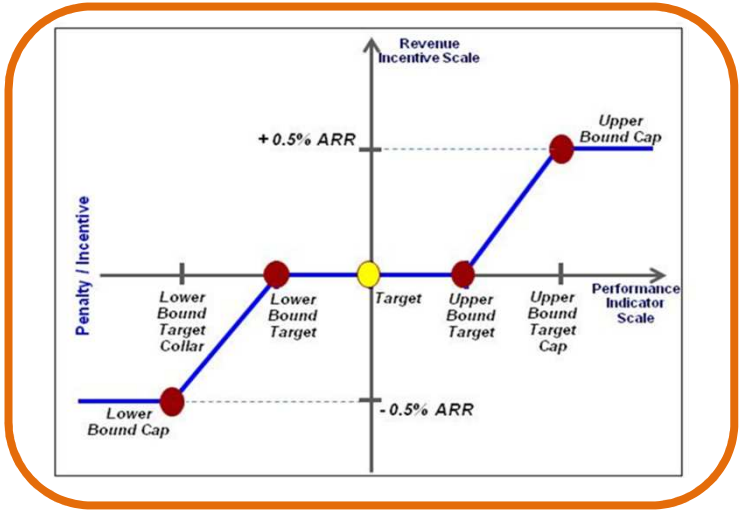
KEY PERFORMANCE INDICATORS (KPIs)

Incentive Based Regulation (IBR) - Incentive and Penalty Mechanism Based on Performance Targets Determined by EC



- Incentive/penalty is capped at +/- 0.3% to 0.5% of annual revenue requirement
- No incentive/penalty if performance between upper and lower bound targets
- Any incentive/penalty to be given in the next regulatory period

Incentive/penalty caps annually: RM47mn

PERFORMANCE KPIs

Code	Performance Incentive Scheme	Unit	Weightage (%)	Lower Bound Target	Upper Bound Target
Customer Services					
CSPI1	System Average Interruption Duration Index (SAIDI)	Mins./cust./year	50	70	55
CSPI2	Average of Minimum Service Level Compliance Performance	%	25	84.11	94.11
CSPI3	Weighted Average Guaranteed Service Level (3, 4 and5)	%	25	86.32	95.50
Transmission					
TXPI1	System Minutes	Minutes	40	5.1	1.5
TXPI2	System Availability	%	30	99.04	99.48
TXPI3	Project Delivery Index	Delayed month	30	5.47	0
System Operator					
SOPI1	Wide Area Loss of Supply Event	No. of wide area system blackout incident	25	1	0
SOPI2.1	Voltage Limit Compliance	%	25	90	96
SOPI2.2	Frequency Limit Compliance	%	25	90	96
SOPI3	Dispatch Adjustment	%	25	0.4	0.2
Single Buyer					
SBPI1	Dispatch Deviation	%	25	0.4	0.2
SBPI2	Compliance to Timely Settlement of Generators' Invoices	%	25	99.55	99.85
SBPI3	Compliance to Malaysian Grid Code	%	25	98.10	100
SBPI4	Compliance to Single Buyer Rules	%	25	95.00	100

Source: EC

KEY PERFORMANCE INDICATORS (KPIs)

TNB Has Been Improving its Performances Over the Years and Now in Line with World Standards

			1ST PHASE : HEADLINE KPIs					
	INITIATIVES	TARGET FY'10	ACTUAL FY'05	ACTUAL FY'06	ACTUAL FY'07	ACTUAL FY'08	ACTUAL FY'09	ACTUAL FY'10
Financial Indicators	Return on Assets (ROA) (%)	6.5	2.2	3.3	6.3	4.6	4.0	4.7
	Gearing (%)	< 60.0	64.9	58.1	49.9	46.9	46.5	42.5
	Company CPU (sen/kwh)							
	Revenue from Non-Regulated Business (RM bn)							
Technical Indicators	Unplanned Outage Rate (UOR)(%)	No target	6.1	4.7	2.2	3.3	2.9	2.7
	T & D Losses (%)	No target	10.5	11.0	10.0	9.5	9.7	9.5
	Transmission System Minutes (mins)	9.0	14.0	7.3	9.3	6.6	1.0	0.9
	Distribution SAIDI (mins)	< 100.0	148.0	101.6	83.0	78.0	68.6	65.0

Note:

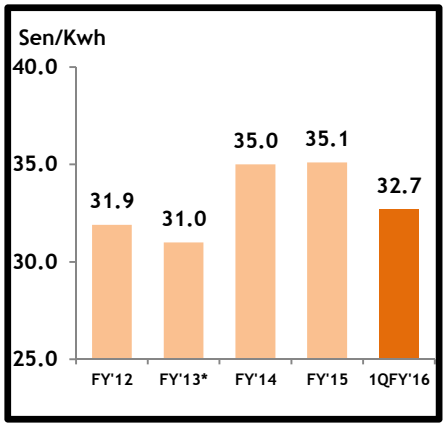
Not tracked as TNB Headline KPI during 1st phase

KEY PERFORMANCE INDICATORS (KPIs)

Financial & Technical 5-Year Performance

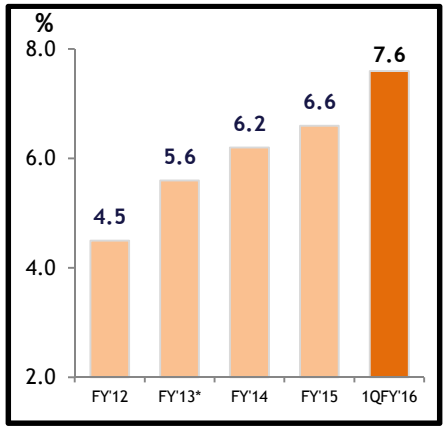
FINANCIAL PERFORMANCE

1 COMPANY CPU (sen/kwh)#



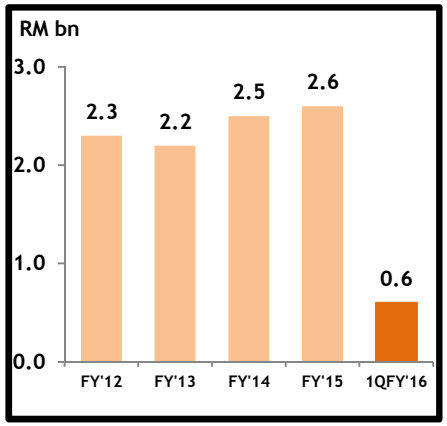
Exclude Finance Cost

2 ROA



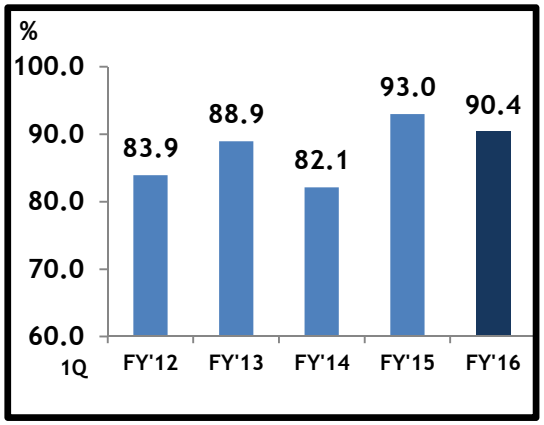
* FY13 - restated

3 REVENUE FROM NON-REGULATED BUSINESS

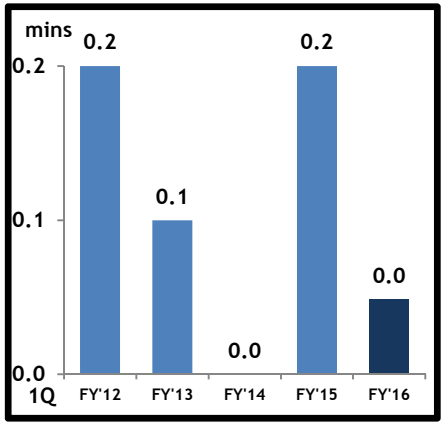


TECHNICAL PERFORMANCE

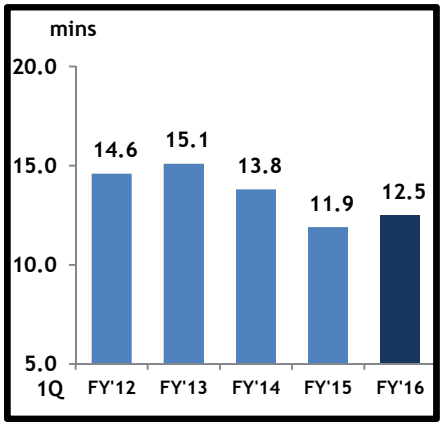
1 EQUIVALENT PLANT AVAILABILITY FACTOR (EAF)



2 SYSTEM MINUTES



3 SAIDI



AGENDA

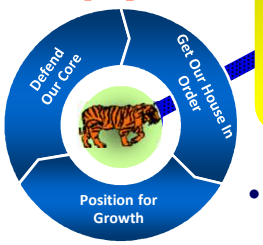
PART ONE

1. INTRODUCTION TO TENAGA
2. INTRODUCTION TO MESI
3. SUSTAINABILITY – GREEN POLICY & INITIATIVES
4. TARIFF
5. KEY PERFORMANCE INDICATORS (KPIs)
6. BUSINESS STRATEGY & DIRECTION
7. DEBT EXPOSURE & GEARING
8. DIVIDEND POLICY

20-YEAR STRATEGIC PLAN

THE PLAN LAYS DOWN THE PATH TOWARDS REALISING OUR VISION OF GLOBAL LEADERSHIP
It builds upon the progress of T7

T 7



SERVICE EXCELLENCE 2010

- Improve Core Operations under T7 Strategy
- Place Tenaga as the best performing company in Malaysia by 2007 and as the Regional best by 2010

GEOGRAPHICAL EXPANSION (SERVICES) 2015

- Expand works and services related to the energy sector
- Creation of new revenue stream leveraging on Tenaga's knowledge and competencies in the energy business

OVERSEAS INVESTMENT 2020

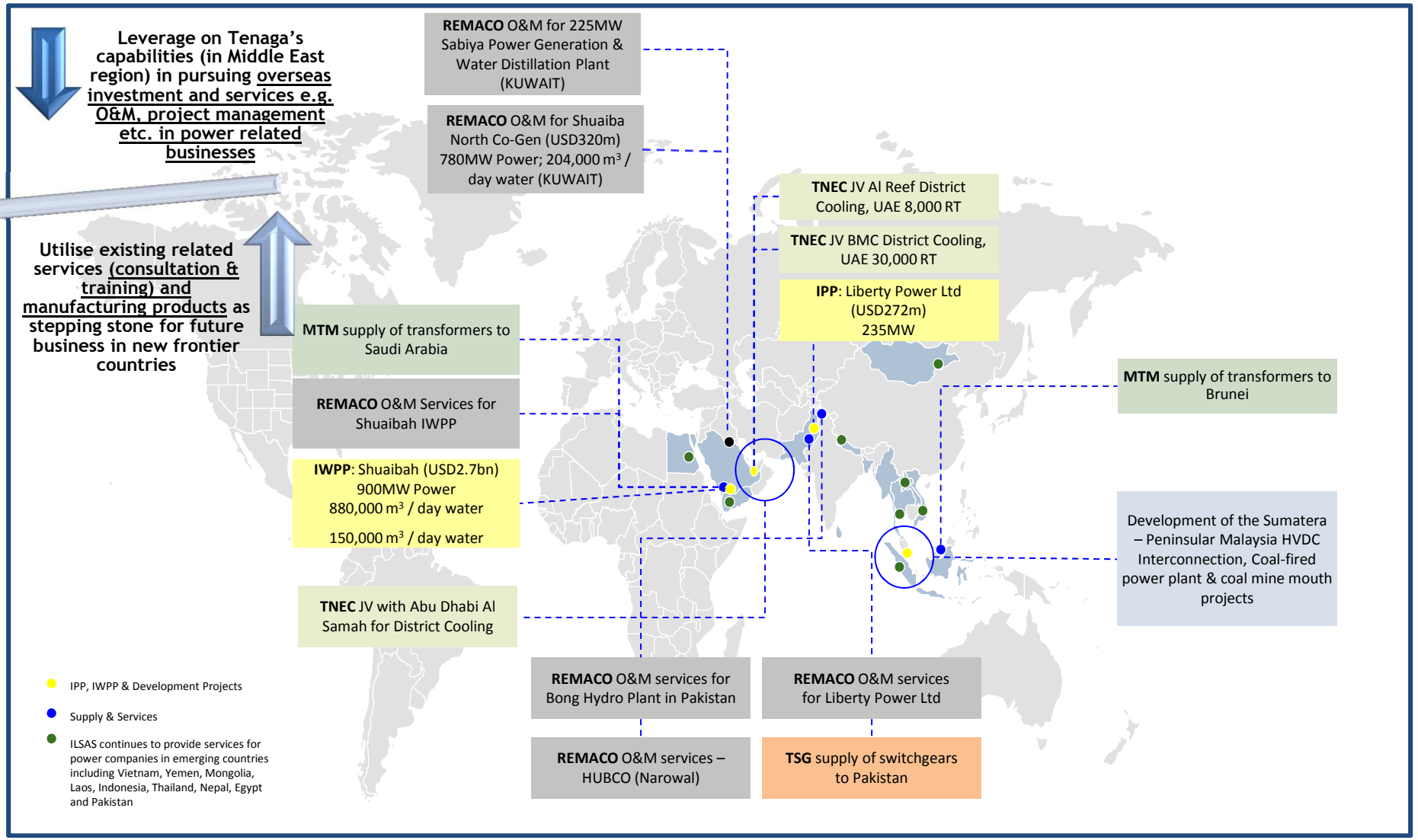
- Improved financial position and human resource readiness
- Venture into power/energy related investments in the international arena

GLOBAL LEADERSHIP 2025

- Excel in:
  - All business areas
  - Reputation as a strong business partner
  - Ability to continue to create shareholder value
- Tenaga acknowledged as amongst the most admired companies globally

INTERNATIONAL FOOTPRINT

Business Expansion in Energy Related Businesses



Source: Company presentation; Note: REMACO is a 100% owned subsidiary with a focus on O&M; MTM is a wholly owned subsidiary manufacturing transformers; TSG is a subsidiary manufacturing high voltage switchgears; TNEC is a wholly owned subsidiary providing project services and developing energy related projects

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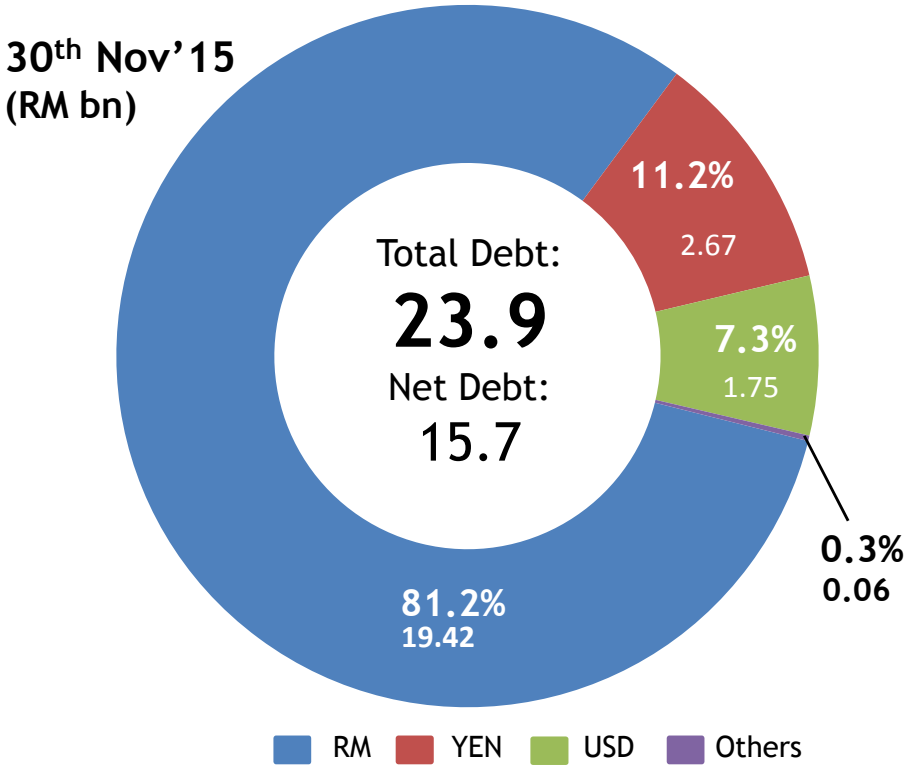
DEBT EXPOSURE & GEARING



Statistics	30th Nov'15	31st Aug'15
Gearing (%)	32.6	34.2
Net Gearing (%)	21.4	21.9
Fixed : Floating (%)	100.0 : 0.0	100.0 : 0.0
Final Exposure (%)	100.0 : 0.0	100.0 : 0.0
Weighted Average Cost of Debt (%)	4.90	4.80
Final Exposure (%)	4.90	4.80

"The Group is required to hedge a minimum of 50.0% of TNB's known foreign currency exposure up to 12 months period. The Group uses forward exchange contracts and currency options contract to hedge its foreign currency risk. Most of the forward exchange contracts have maturities of less than three months"

HEDGING POLICY

Closing	30th Nov'15	31st Aug'15
USD/RM	4.25	4.19
100YEN/RM	3.46	3.47
USD/YEN	122.83	120.75

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DIVIDEND

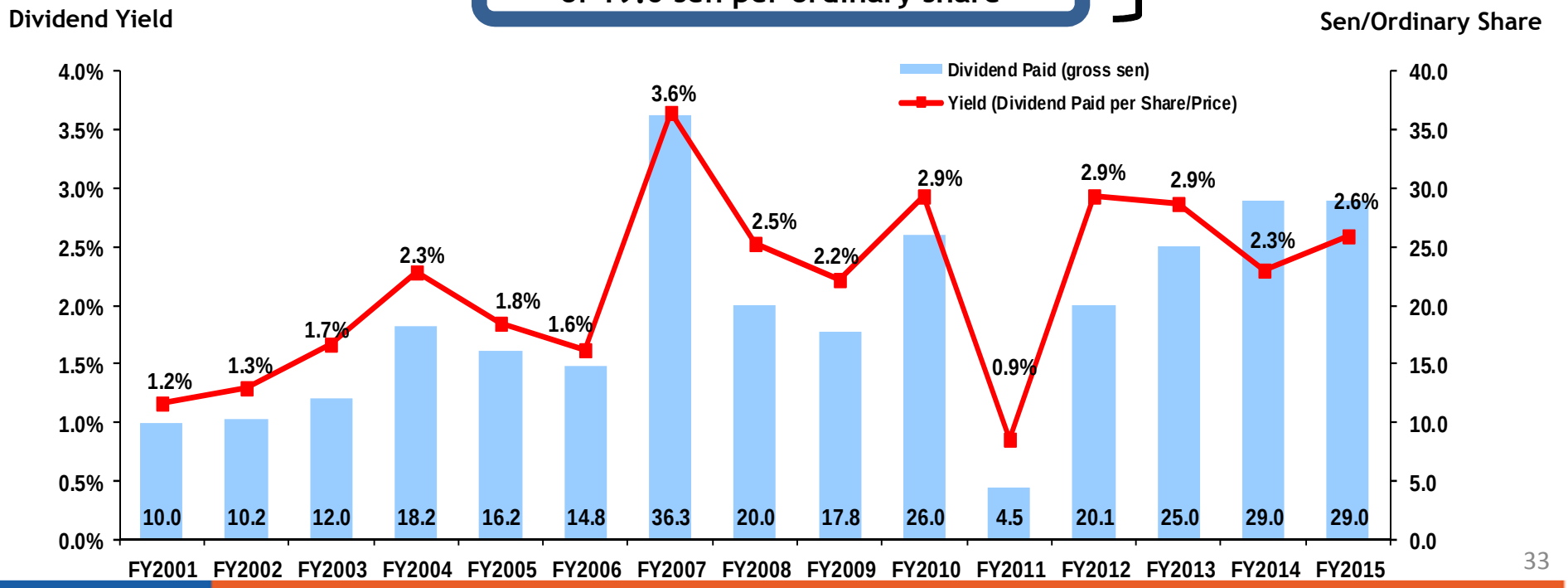
Policy and Yield

Tenaga is committed to pay out dividend based on its Dividend Policy whereby:
*Dividend is paid out based on **40%-60%** of its Company's Annual Free Cashflow;*
Cashflow from Operations less Normalised Capex and Interest Servicing

Interim Single-Tier Dividend of 10.0 sen per ordinary share

Single-Tier Dividend of 19.0 sen per ordinary share

Total FY'15: 29.0 sen per ordinary share



PART TWO

1QFY2016 RESULTS HIGHLIGHTS

1st QUARTER FY2016

3-Month Ended 30th Nov 2015

TENAGA NASIONAL

Nov 2015

	1QFY2016	1QFY2015	YoY
Profit After Tax	RM1.96 bn	RM2.35 bn	▼ (16.5%)
Forex Translation Gain/(Loss)	(RM58.5 mn)	RM45.9 mn	▼ >(100.0%)
Revenue	RM10.68 bn	RM11.03 bn	▼ (3.2%)

- 3.2% unit electricity demand growth in Peninsular Malaysia

QUARTERLY & YEARLY ANALYSIS

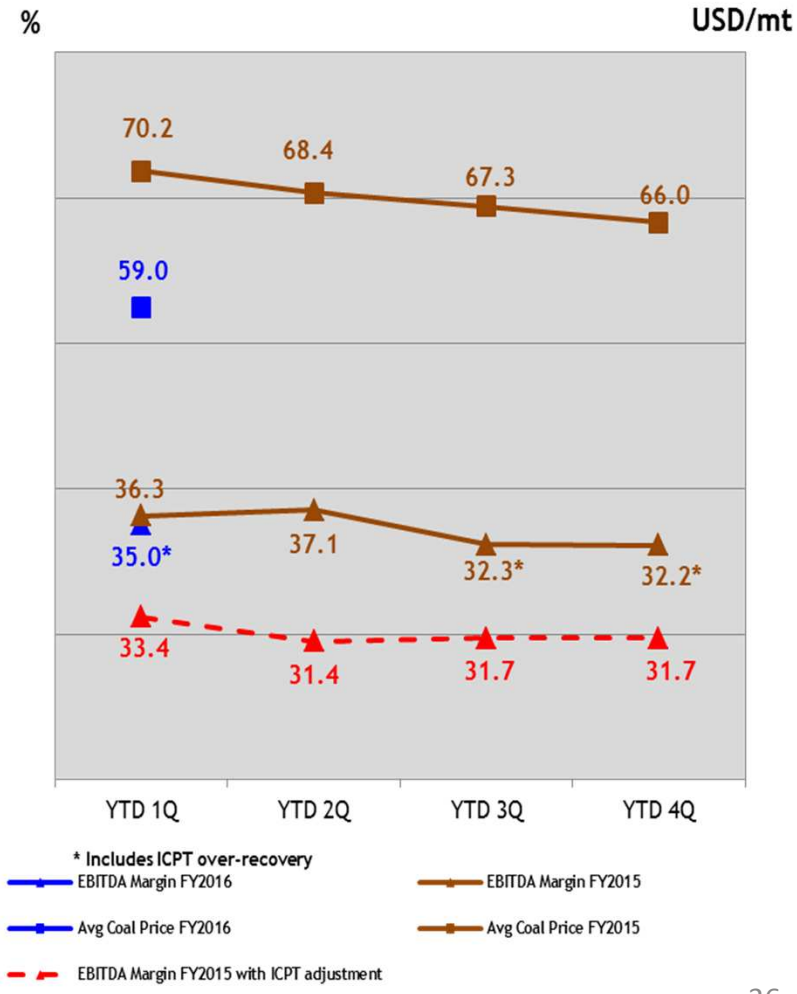
Stable EBITDA Margin from ICPT Implementation

TENAGA NASIONAL

Nov 2015

RM mn	1QFY'16	1QFY'15
Total Units Sold (GWh)	28,571.1	27,450.3
Revenue	10,676.8	11,027.1
Operating Expenses (before depreciation)	7,078.0	7,161.8
Operating Income	139.3	136.9
EBITDA	**3,738.1**	**4,002.2**
EBITDA Margin (%)	**35.0%**	**36.3%**
Depreciation and Amortisation	1,340.4	1,257.4
EBIT	**2,397.7**	**2,744.8**
EBIT Margin (%)	**22.5%**	**24.9%**
Finance Cost	259.7	253.9
Profit Before Tax & Forex Translation	**2,221.8**	**2,574.9**
Net Profit Before Forex Translation	2,034.5	2,306.0
Translation Gain/(Loss)	(58.5)	45.9
Net Profit attributable to : Equity Holders	**1,976.0**	**2,351.9**
Non-controlling Interest	(13.8)	(0.9)

ANALYSIS OF EBITDA MARGIN & COAL PRICES



GENERATION MIX (PENINSULA)

Year-on-Year Analysis

TENAGA NASIONAL

Nov 2015

6.4% Reduction in Fuel Costs Mainly due to Lower LNG Price & LNG Consumption

Table 1:

Fuel Costs (RM mn)				
Fuel Type	1QFY'16	1QFY'15	Variance	
			RM mn	%
Gas	1,881.1	1,861.6	19.5	1.0
LNG	296.0	685.2	(389.2)	(56.8)
Coal	1,587.2	1,301.4	285.8	22.0
Dist.	4.6	95.3	(90.7)	(95.2)
Oil	11.4	97.4	(86.0)	(88.3)
Total	**3,780.3**	**4,040.9**	**(260.6)**	**(6.4)**

Units Generated (Gwh)				
Fuel Type	1QFY'16	1QFY'15	Variance	
			Gwh	%
Gas & LNG	13,541.7	13,860.0	(318.3)	(2.3)
Coal	14,358.3	13,056.0	1,302.3	10.0
Dist.	8.8	132.2	(123.4)	(93.3)
Oil	24.5	201.9	(177.4)	(87.9)
Hydro	1,182.3	943.6	238.7	25.3
Total	**29,115.6**	**28,193.7**	**921.9**	**3.3**

Table 2:

	1QFY'16	1QFY'15
Daily Average Gas Volume (mmscfd)	1,175	1,218
Average LNG Price (RM/mmbtu)	33.07	46.75

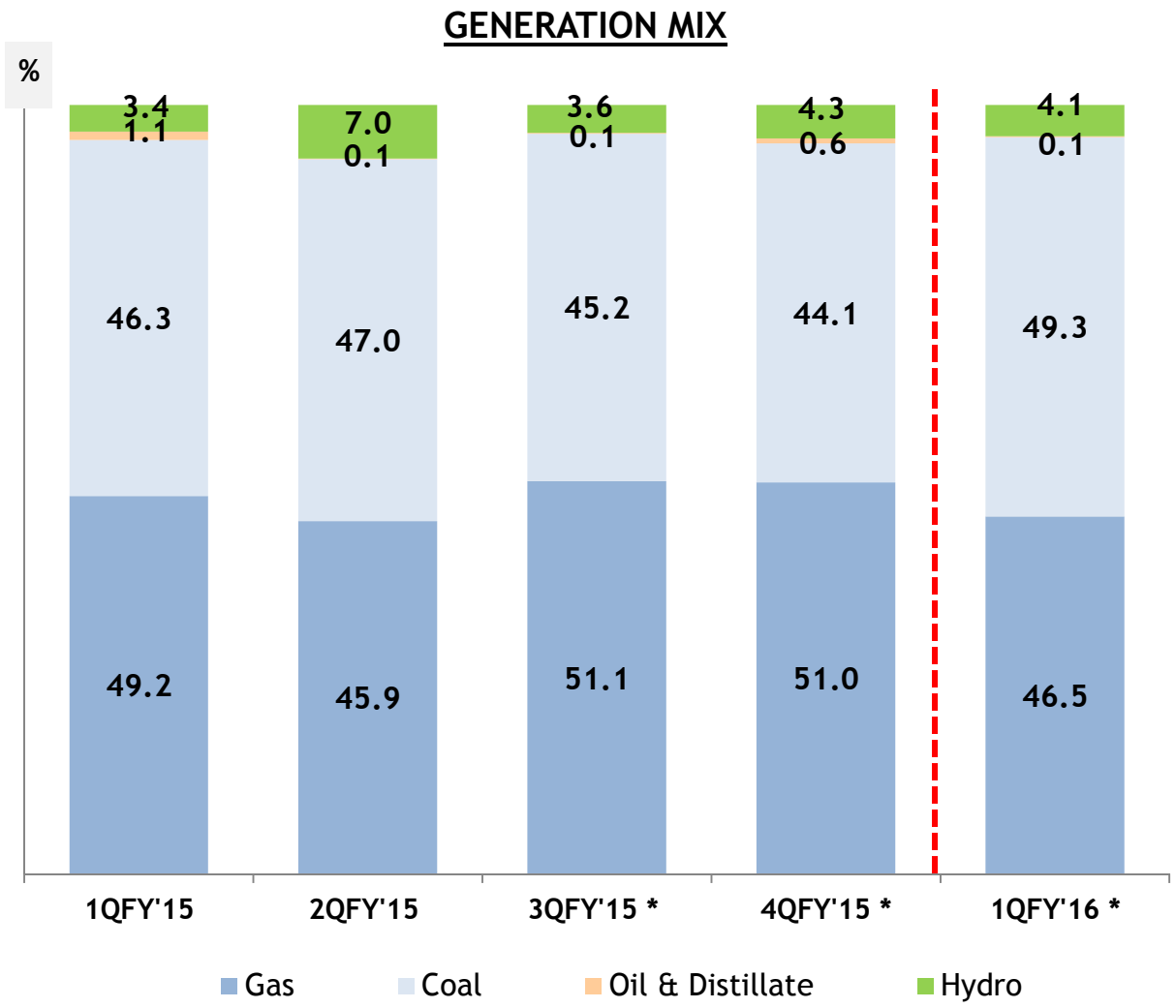
Table 3:

	1QFY'16	1QFY'15	Var (%)
Average Coal Price Consumed (USD/MT)			
FOB	52.8	60.4	-12.6%
Freight	5.8	9.3	-37.6%
Others	0.4	0.5	-20.0%
CIF	59.0	70.2	-16.0%
Average Coal Price Consumed (RM/MT) (CIF)	254.1	230.2	10.4%
Coal Consumption (mn MT)	6.1	5.6	8.9%

GENERATION MIX (PENINSULA) con't

Quarterly Analysis

Nov 2015



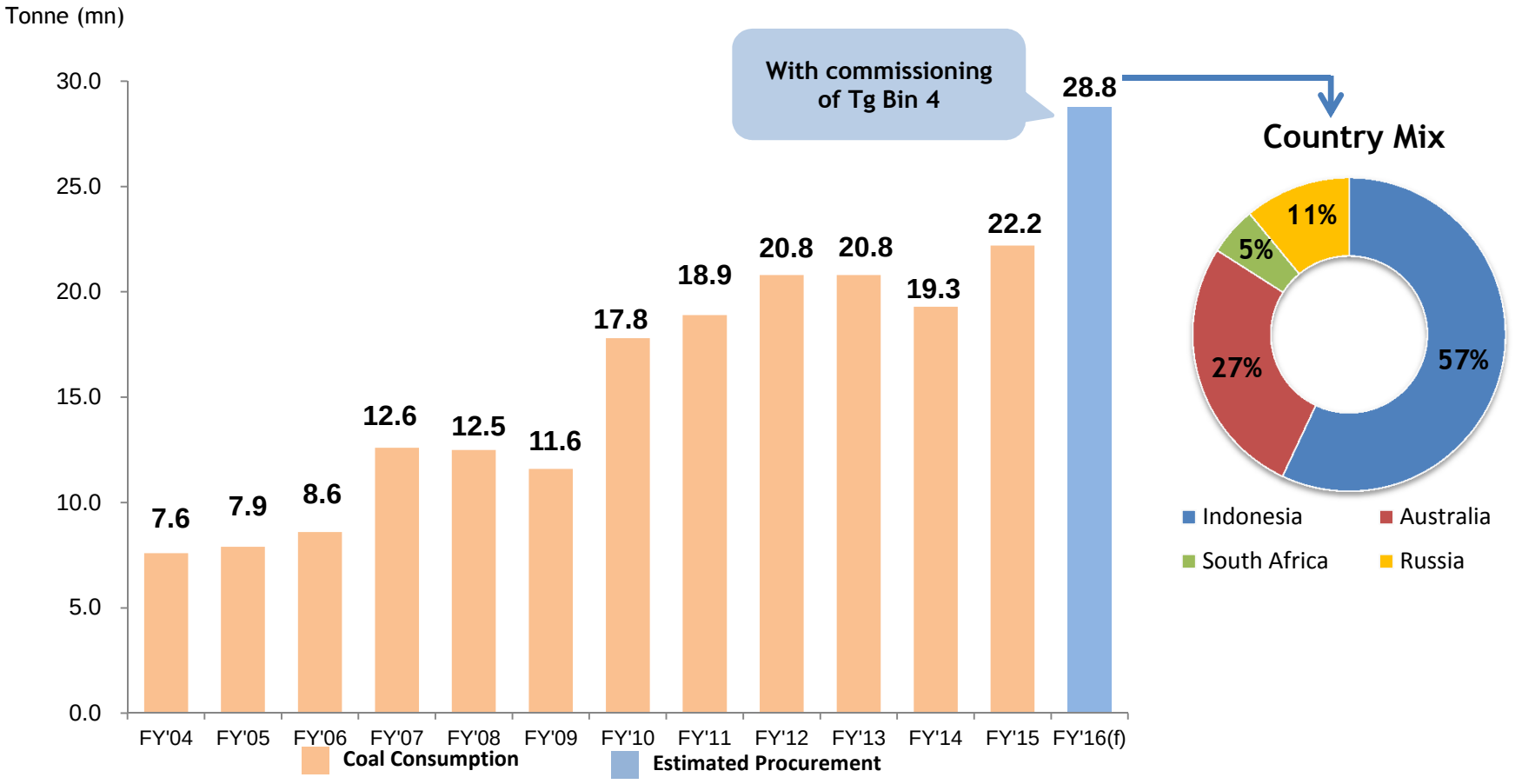
* Includes Manjung 4 (COD on 14th Apr 2015)

COAL REQUIREMENT

Average Coal Price for 1QFY'16 was at USD59.0/MT

Nov 2015

Average Coal Price (CIF)	FY'10	FY'11	FY'12	FY'13	FY'14	FY'15	1QFY'16
(USD/metric tonne)	88.2	106.9	103.6	83.6	75.4	66.0	59.0
(RM/metric tonne)	293.8	325.9	321.9	259.5	244.6	236.0	254.1



ELECTRICITY GROWTH IN PENINSULA

3.2% Growth in Electricity Demand

Nov 2015

UNITS SALES		FY2015				FY2016			
		1Q	2Q	3Q	4Q	Sept	Oct	Nov	1Q
Industrial	Gwh	10,973	10,976	10,761	11,009	3,764	3,572	3,765	11,101
	Growth (%)	3.1	1.6	1.7	0.1	1.6	(0.3)	2.1	1.2
Commercial	Gwh	9,018	8,860	8,990	9,361	3,142	3,054	3,173	9,369
	Growth (%)	3.4	3.1	1.4	2.0	9.6	1.6	0.9	3.9
Domestic	Gwh	5,538	5,338	5,775	6,121	2,004	1,947	1,935	5,886
	Growth (%)	3.0	2.1	4.1	2.5	8.8	3.2	6.9	6.3
Others	Gwh	496	493	462	483	162	163	165	490
	Growth (%)	6.9	5.6	(0.9)	0.6	(3.6)	(0.6)	0.6	(1.2)
TOTAL	Gwh	26,025	25,667	25,988	26,974	9,072	8,736	9,038	26,846
	Growth (%)	3.3	2.3	2.1	1.3	5.7	1.1	2.6	3.2

FY'15 2.2%

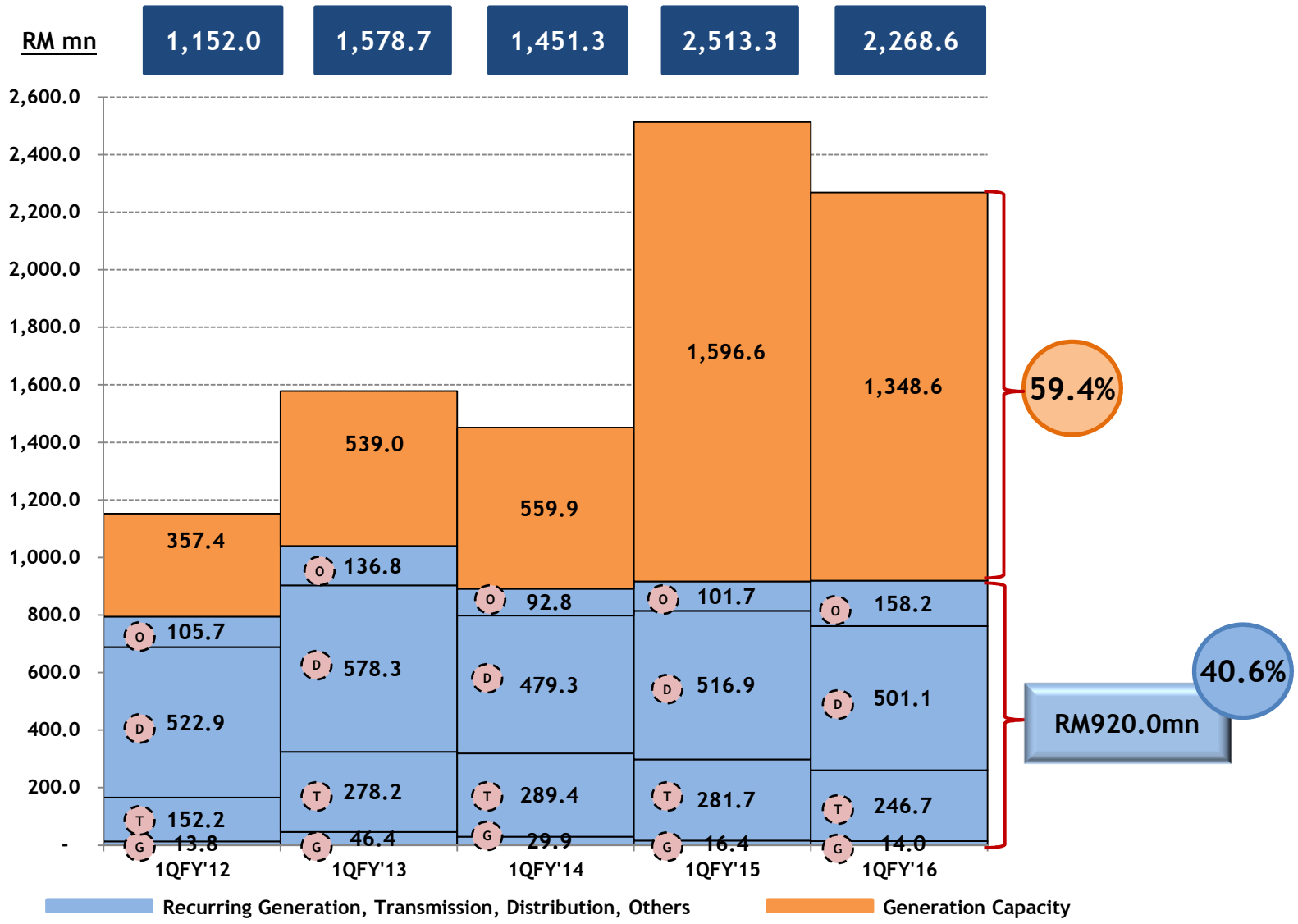
1QFY'16 3.2%

	1QFY'16	1QFY'15
Growth (%)	3.2	3.3

CAPITAL EXPENDITURE

Major Projects Represent 59.4% of Total CAPEX

Nov 2015



DISCLAIMER

CONTACT DETAILS

For further enquiries, kindly contact us at:

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TENAGA NASIONAL

Better. Brighter.

THANK YOU