



Maybank Investment Bank – Bursa Malaysia
“ESG In Investing: The Time is Now”



Tenaga: Commitment Towards a Sustainable Future

Date : 28th April 2021 (Wednesday)
Time : 2.15pm – 3.00pm

Presented by :
En. Nazmi Othman, CFO of TNB

Prepared by : CoE Investor Relations



Inevitable Changes in Industry Landscape



Global Energy Transition

- Climate change drives greater decarbonisation efforts and increased RE



Emergence of Disruptive Technologies

- Disruptive technologies are starting to reach economic viability and mass adoption across the world



Changing Customers' Expectations

- Customers expectations are being shaped by innovative product and across the value chain solution



National Commitments



COP21 commitment is to reduce GHG emissions intensity by 45% by 2030 relative to 2005 consisting of 35% on unconditional basis & 10% conditional with international assistance

Malaysia target to achieve 31% RE capacity mix by 2025

As a developing nation, it is important to implement strategies and action plans that achieve economic aspirations through a model that is sustainable, responsible, yet economical



A Strategic Roadmap anchors TNB's aspirations, charting progress in core growth areas



Our aspiration:
To be a Leading Provider of Sustainable Energy Solutions in Malaysia and Internationally



Future Generation Sources (Domestic & International)
2025 EBIT Target : RM5.0bil

Generation portfolio will shift towards Renewables



Grid of the Future (Transmission & Distribution Network)
2025 EBIT Target: RM6.1bil

An advanced and digitalized energy super highway to accommodate more renewables



Winning the Customers (Retail)
2025 EBIT Target: RM0.7bil

Energy Transition will provide new opportunities for growth

NEW DISRUPTIVE TECHNOLOGIES

	2015	March 2021
Solar	-	556MW
Biomass & Biogas	-	13.2MW
Wind	-	144MW

	Progress
Bi-directional power flows from distributed generation	<ul style="list-style-type: none"> Installation of transducers in RE connection to detect bi-directional power flow Development of mapping function online for available RE capacity to facilitate new RE connection
Grid storage	4MW uninterrupted power supply (UPS) storage for power quality use case in Melaka
Smart meters	1,116,651 units installed (as at March 2021) out of 9.1mil units to be installed across Peninsular Malaysia by 2027

	Progress
Distributed solar	85MW secured capacity via GSPARX (as at March 2021)
Electric vehicles (EV)	73 ChargEV charging stations installed (as at March 2021)



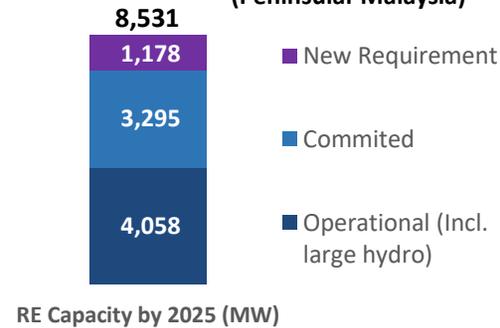
The increasing emphasis on Sustainable Energy sets the tone for ambitious RE targets

National Sustainability Initiatives



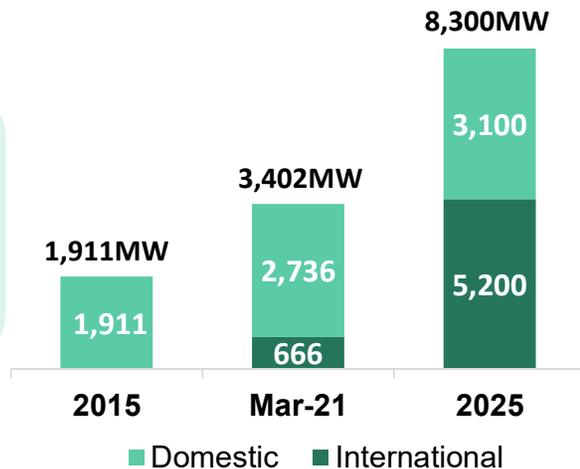
- ❖ Malaysia issues world's 1st sovereign dollar sustainability sukuk (US\$800 mil – 10 years, US\$500 mil – 30 years), oversubscribed by 6.4 times
- ❖ Malaysia target to achieve **31% RE capacity mix by 2025**
 - 26% for Peninsular Malaysia
 - 5% for East Malaysia

RE Requirement to Meet RE Capacity Mix of 26% by 2025 (Peninsular Malaysia)



Source:
Report on Peninsular Malaysia generation development plan 2020 (2021 – 2039), Energy Commission

TNB RE Target of 8,300MW by 2025



Note:
RE includes large hydro

Progress

- i. GSPARX - Total 85 MW (secured capacity) as at March 2021
- ii. LSS4 - Received Letter of Notification as a Shortlisted Bidder from the EC to develop a 50MWa.c. (75MWd.c.) LSS plant at Bukit Selambau, Kedah

Ambition 1: RACo is currently building up investment pipeline leveraging on wide business network. RACo is expected to contribute 2GW of RE capacity by 2025.

- Binding Offer has been accepted by the seller for the acquisition of FiT wind asset in UK.
- Solar asset acquisition in the pipeline.

Ambition 2: Finalising definitive JV agreements with Sunseap to explore RE business in Singapore & Vietnam.

- Secure cross border RE sales to Singapore – Entered into a binding term sheet of collaboration with Sunseap Group to tap into RE and Corporate PPA in Singapore market.
- Expand into solar market in Vietnam – will acquire a 39% stake in a 21.6MW project comprising 5 rooftop solar plants in Vietnam from Singapore's Sunseap Group.

Investment in infrastructure for regulated business is key towards catalysing a sustainable energy ecosystem...
 Grid of the Future plays central role in infrastructure development



Regulated businesses spends on average ~16% of its CAPEX towards supporting Energy Transition

Annual Regulated CAPEX to support Energy Transition



Grid of the Future is the largest contributor to the Group's overall EBIT target by 2025 of RM6.1 bil

Renewable Energy (RE) Integration	Smart & Resilient Grid	Energy Efficiency & Sustainability
<ul style="list-style-type: none"> Accommodate intermittent RE generation, EV, Distributed Energy Resource (DER) with target of reducing CO₂ emission by up to 50mil kg CO₂ Enabling EV charging Station for electric vehicles up to 500 stations nation wide 	<ul style="list-style-type: none"> Grid modernization with Smart Meters to empower consumers to rationalize and control their consumption as well as enable prosumers to sell back to the Grid System to optimise voltage flows to facilitate energy conservation as well as deliver resilient, reliable quality power with bidirectional energy flow 	<ul style="list-style-type: none"> Enabling Green Energy program participation to reduce electricity cost consumption Providing dynamic supply and energy platform to utilize DER and support introduction of Green Energy Programs (NEM, FIT, ToU)

Grid of the Future will play an important central role in Malaysia's future electricity sector ecosystem, from a traditional electricity service provider to an energy integrator and facilitator of open markets

In addition, TNB is empowering customer participation in the Energy Transition and paving the way for electrification efforts



Empowering The Customer

Encouraging voluntary RE programs



- ❑ Rooftop PV: Total 85 MW (secured capacity) as at Mar'21



- ❑ We have sold 487,459MWh / 52% of renewable energy certificates (RECs) out of 941,480MWh tradable units as of Mar'21



- ❑ Total Subscription 151,900 kWh out of 37,115,300 kWh with a total of 149 customers as at 26th April 2021

Promoting energy efficiency



- ❑ EE solutions such as smart home energy monitoring and security solution



District Cooling

- ❑ TNB Engineering Corporation Sdn Bhd (TNEC) will be operating latest district cooling technology with higher efficiency in supplying cooling energy and electricity to KLIA's Main Terminal and its associated facilities

Broadband Business



- ❑ ALLO is expanding its fibre broadband footprint to about 150,000 premises in Peninsular Malaysia.
- ❑ TNB is also working closely with the regulators to achieve the aspiration of the JENDELA



Our Customer Satisfaction Index score was 86% in FY2020, an increase from 81% in the past 4 consecutive years and the highest in 20 years



Education

RM111.1mil

We believe that education can transform lives of not just one individual but families and generations.



My Brighter Future



Yayasan Tenaga Nasional



Trust School



Ceria Ke Sekolah



Better Brighter Vision



Community & Social

RM61.2mil

We believe that capability, social, and community development supports liveability and enhances livelihood by uplifting the economic and social quality of life.



Covid-19 Response Aid (MOH & State Gov.)



Baiti Jannati & Mesra Rakyat



Hockey Sponsorship



Better Brighter Shelter



TNB Reskilling Malaysia initiative & Training & Development



Environment

RM1.6mil

We believe that the future of our planet and next generation depends on our responsible behaviour today

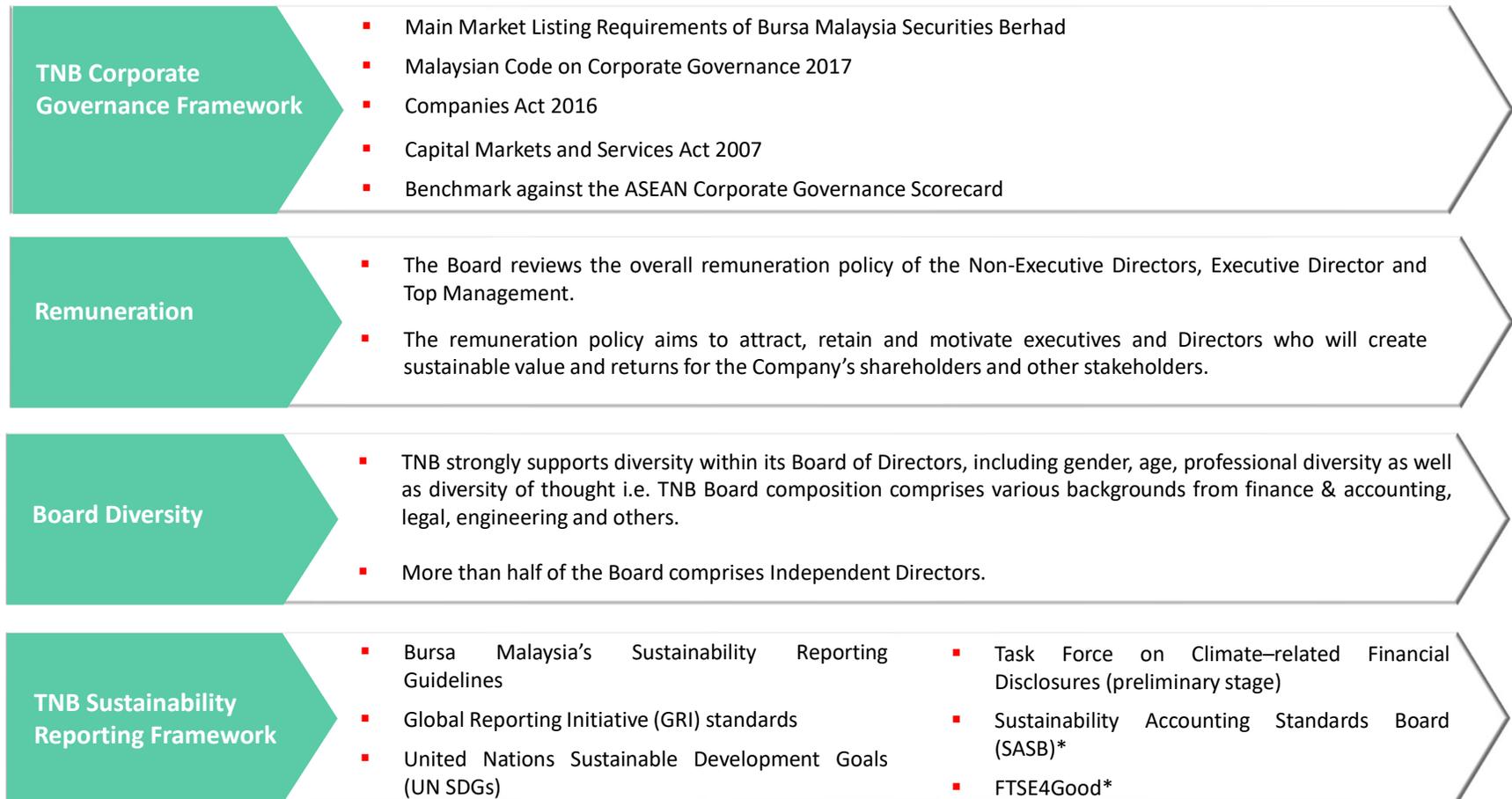


Firefly Conservation



Mangrove Planting Programme

TNB upholds the highest standards of corporate governance embedded in a culture that values ethical behaviour, integrity and sustainability



*Conducting preliminary mapping of sustainability disclosures to SASB and FTSE4Good indicators in FY'20

TNB is at the forefront of the country's energy transition, driving an ambitious strategic growth plan to ensure a sustainable energy future powered by renewable generation sources and delivered through high-tech infrastructure



Amidst an increasingly challenging environment, TNB is committed to maintain a firm balance of the energy trilemma and continue to enhance its sustainability performance in ESG pillars



Environment

- We are the primary driver at spearheading the energy transition in the country
- We are dedicated in minimizing our environmental impact across all our businesses.
- We focus on building our renewable energy portfolio business.



Social

- We are devoted in providing better lives to the surrounding communities by creating positive impacts and contributing to nation-building.
- Social initiatives are the core focus in improving the standard of living of communities as well as work towards sustainable development for all.



Governance

- We will uphold the highest standards of corporate governance.
- We are committed to integrate sustainability into our strategies, policies and operations, as well as strengthening ethical and safe practices to reinforce sound business and forward-looking culture in the company.

THANK YOU