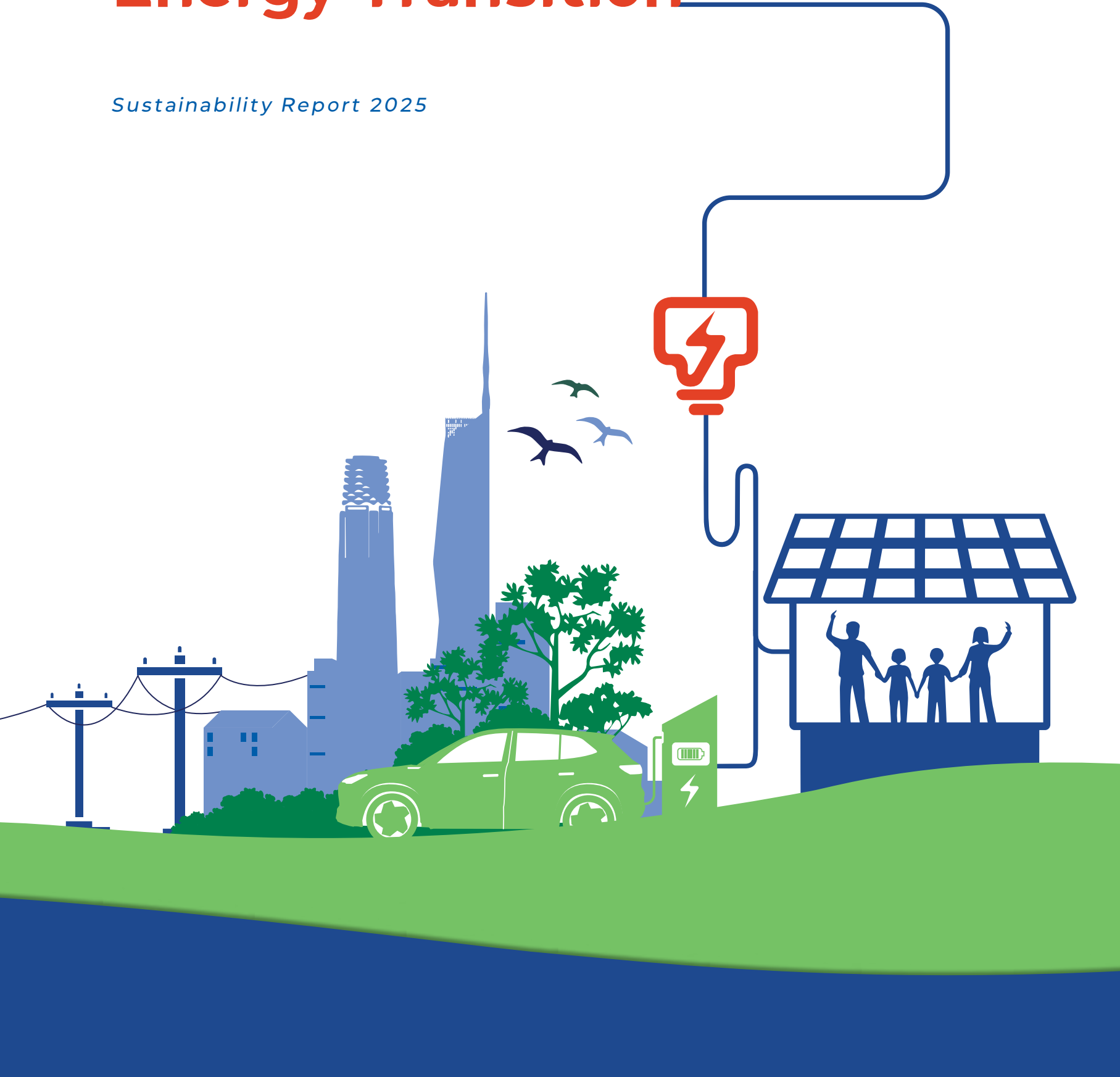




# Delivering Tomorrow's Energy Transition

Sustainability Report 2025



# Delivering Tomorrow's Energy Transition



Guided by the theme Delivering Tomorrow's Energy Transition, this year's cover reflects a journey shaped by both progress and purpose. It captures a pivotal moment of transformation, where the decisions made today lay the foundation for the energy systems of tomorrow.

Energy extends beyond infrastructure. It powers homes, fuels ambitions and connects communities, quietly enabling the everyday moments that matter most. As the energy landscape evolves, its role becomes even more profound, supporting the way people live, work and thrive in a rapidly changing world.

This transition demands care, responsibility and long-term vision. It represents a deliberate shift towards cleaner energy pathways, smarter systems and a more adaptive ecosystem built for the future. Each step forward strengthens not only how energy is delivered, but how lasting value is created for society.

Through this journey, TNB continues to help shape a future where progress is inclusive, sustainable and built to last; delivering not just energy, but a better tomorrow for all.

## INSIDE THIS REPORT

### 01 INTRODUCTION

Marking a Milestone, Advancing a Mission  
Basis of Preparation – Scope and Basis  
Our Sustainability Performance  
ESG Rating  
Awards and Recognitions

### 02 WE ARE TNB

02	Joint Leadership Statement	08
02	Our Sustainability Journey	12
04	Sustainability Governance	14
06	We Are TNB	18
07	Power Generation	18
	Grid	19
	Distribution Network	20
	Retail	21
	Our Customer Profile	22

### 03 SUSTAINABILITY APPROACH

Memberships and Associations	24
TNB Value Chain and Value Creation	26
Delivering Economic Value Supported by Robust Governance	28
Stakeholder Engagement	29
TNB Materiality Assessment	33

### 04 WHAT MATTERS TO THE STAKEHOLDERS

MT1 : Energy Transition and Grid Resiliency	42
MT2 : Greenhouse Gas Emissions and Energy Resource Planning	55
MT3 : Climate Resiliency	75
MT4 : Customer Experience and Energy Efficiency	84
MT5 : Water and Biodiversity	96
MT6 : Nuclear as a Future Clean Energy Source	112
MT7 : Energy Reliability and Affordability	116
MT8 : Air Quality Management	122
MT9 : Waste Management and Coal Ash Management	129
MT10 : Safety, Health and Well-Being	142
MT11 : Business Ethics and Corporate Governance	164
MT12 : Labour Rights and Employment Culture	175
MT13 : Community Development and Social Impact	192
MT14 : Sustainable and Responsible Supply Chain	203
MT15 : Digital Trust and Cybersecurity	214

### 05 APPENDIX

Performance Table	218
Sustainability Accounting Standards Board (SASB) Content Index	236
GRI Content Index	237
Prescribed Table	242

### NAVIGATING THIS REPORT

#### Our Capitals

<b>FC</b> Financial Capital	<b>MC</b> Manufactured Capital
<b>SR</b> Social & Relationship Capital	<b>HC</b> Human Capital
<b>IC</b> Intellectual Capital	<b>NC</b> Natural Capital

#### Strategic Pillars

<b>DC</b> Deliver Clean Generation	<b>DE</b> Develop Energy Transition Network
<b>DS</b> Dynamic Energy Solutions	<b>DR</b> Drive Regulatory Evolution

#### Our Stakeholders

<b>S1</b> Customers & Communities	<b>S6</b> Federal & State Governments
<b>S2</b> Regulators	<b>S7</b> Financial Communities
<b>S3</b> TNB's Retirees	<b>S8</b> Non-Governmental Organisations (NGOs) & Associations
<b>S4</b> Employees	<b>S9</b> Vendors & Partners
<b>S5</b> Media	

#### Material Topics

##### Our Climate Response and Energy Transition Strategy

<b>MT 1</b> Energy Transition and Grid Resiliency
<b>MT 2</b> Greenhouse Gas Emissions and Energy Resource Planning
<b>MT 3</b> Climate Resiliency
<b>MT 4</b> Customer Experience and Energy Efficiency
<b>MT 5</b> Water and Biodiversity
<b>MT 6</b> Nuclear as a Future Clean Energy Source

##### Our Commitment to Advancing Sustainability Management

<b>MT 7</b> Energy Reliability and Affordability
<b>MT 8</b> Air Quality Management
<b>MT 9</b> Waste Management and Coal Ash Management
<b>MT 10</b> Safety, Health and Well-Being

##### Our Shared Path Towards Sustainability

<b>MT 11</b> Business Ethics and Corporate Governance
<b>MT 12</b> Labour Rights and Employment Culture
<b>MT 13</b> Community Development and Social Impact
<b>MT 14</b> Sustainable and Responsible Supply Chain
<b>MT 15</b> Digital Trust and Cybersecurity



## INTRODUCTION

### MARKING A MILESTONE, ADVANCING A MISSION

As a leading energy solutions provider, we are unwavering in our commitment to embedding sustainability at the core of our operations. With Reimagining TNB 2.0 as our compass, we are intensifying our efforts to deliver on our ESG commitments. Through transparent disclosures aligned with ISSB standards, we aspire to continuously deliver value to shareholders, empower our workforce and uplift communities.

TNB's primary business is in power generation and the transmission, distribution and sales of electricity. The business continues to evolve in response to Malaysia's Energy Transition, supported by the Group's strong governance, compliance with applicable regulatory frameworks and strategic investments in low-carbon technologies that enhance long-term enterprise value creation.

[For more information about our value creation model, refer to TNB Integrated Annual Report 2025 on Our Value Creating Business Model.](#)

### TNB Operations, Resources and Relationships

TNB Group considered its business activities, including the products and services it provides, as well as the geographical and regulatory landscape of its operations. The Group also considered the resources it depends on and the relationships across its value chain. A high-level overview of the context considered is summarised below:

- a. Key locations: The Group operates in Malaysia, United Kingdom, Ireland, Türkiye, Australia and Saudi Arabia. The suppliers are mainly located in the countries where the TNB Group operates.
- b. Regulations: Due to the nature of the industry and the high level of scrutiny from stakeholders, the Group adheres to the regulatory requirements established by both local and international authorities, as well as the Group's policies. In cases where there are conflicting requirements, the more stringent requirements prevail.
- c. Key resources: The Group depends on several resources, which include the following:
  - Natural resources, which are used to generate the electricity supplied to our customers
  - Bank loans and other sources of financing to fund the Group's operations
  - Our employees, vendors and contractors
  - Joint ventures and partnerships with third parties

### BASIS OF PREPARATION – SCOPE AND BASIS

The Sustainability Report 2025 (Report) of TNB Company and its subsidiaries (TNB Group) has been prepared in accordance with the IFRS Sustainability Disclosure Standards as issued by the International Sustainability Standards Board (ISSB), in line with Bursa Malaysia's Main Market Listing Requirements (MMLR). In addition, the Report is prepared with reference to the Global Reporting Initiative (GRI) and in support of the United Nations Sustainable Development Goals (UN SDGs).



Disclosure topics in the Sustainability Accounting Standards Board (SASB) standards on the industry-specific Electric Utilities and Power Generators have also been referred to and considered when preparing this Report.

[Refer to the Materiality Assessment chapter for further information on how the SASB topics and indicators have been mapped to the TNB material topics.](#)

### Connectivity With Financial Statements

The Report has been prepared for the Group and should be read in conjunction with TNB Group's consolidated financial statements. This Report covers the financial year ended 31 December 2025 and is aligned with the reporting period of the related consolidated financial statements.

TNB Group defines time horizons based on when the sustainability-related and climate-related risks and opportunities could reasonably be expected to occur. As of the end of the reporting period, the following time horizons were identified, aligning with the timelines used for strategic green decision-making:

- Short term (2026)
- Medium term (2027–2030)
- Long term (2031–2050)

In preparing these sustainability-related financial disclosures, TNB Group has assessed its own operations and its value chain which includes, among others, the joint ventures and associates of TNB Group.

### **IFRS Sustainability Disclosure Standards and Transition Reliefs**

TNB Group is committed to a phased adoption of IFRS S1 and IFRS S2. TNB Group is also disclosing material topics in accordance with IFRS S1 “General Requirements for Disclosure of Sustainability-related Financial Information” on a voluntary basis.

TNB Group has applied the following transition reliefs provided by the IFRS Sustainability Disclosure and the MMLR:

- Permissible to focus climate-related disclosures specifically on principal business segments.
- Permissible to not disclose Scope 3 greenhouse gas (GHG) emissions (IFRS S2 Paragraph C4(b)), except for categories already required by applicable entities’ respective regulators.

Our disclosures include physical risk scenario analysis; transition risk scenario analysis is being developed and has not been included in the current reporting period. In line with IFRS S2, TNB is progressively strengthening its internal capabilities, methodologies and data processes and plans to incorporate transition risk scenario analysis in future reporting periods.

### **Reporting Boundary**

We have undertaken a review of the ISSB and GRI disclosure topics and have actively integrated them into our reporting process. This reflects our strong and ongoing commitment to enhancing transparency, strengthening governance and embedding globally recognised sustainability practices across our disclosures.

TNB’s sustainability disclosures are prepared using reasonable and supportable information available without undue cost or effort, with the reporting boundary defined in accordance with ISSB and National Sustainability Reporting Framework (NSRF) requirements.

TNB is committed to a phased adoption of IFRS S1 and IFRS S2. For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries.

In addition, the disclosure uses the GHG Protocol Corporate Accounting and Reporting Standard to measure the GHG emissions. Details of TNB’s approach in measuring its GHG emissions and further information on Scope 1, Scope 2 and relevant Scope 3 emissions can be found in the chapter “Greenhouse Gas Emissions and Energy Resource Planning”.

### **Judgement and Assumptions**

In the process of preparing this Report, TNB Management has exercised judgement in a number of areas, including the process of identifying sustainability-related risks and opportunities and identifying relevant information to report.

In addition, the preparation of this Report requires the application of judgement and the use of assumptions for certain information that cannot be directly measured or is subject to inherent measurement uncertainty. Assumptions have been applied where sustainability information relates to entities within the value chain and require estimation, or where disclosures involve forward-looking information and are subject to resource constraints or data availability limitations.

Judgement and assumptions were also applied in considering the metrics within disclosure topics in reference to SASB, including GHG quantification methodologies, identification and quantification of sustainability-related risks and opportunities (SRROs) and climate-related risks and opportunities (CRROs) and the selection of metrics within the applicable SASB standards for the Group.

## OUR SUSTAINABILITY PERFORMANCE

Allocated **RM139 million** for TNB **Climate Adaptation Plan** across 180 identified assets, focusing on resilience against flooding and soil movement



Commissioned **47 MWp of solar rooftop** capacity, bringing our cumulative installed capacity to 216 MWp

- **1,988** residential customers
- **9** property developers
- **405** commercial and industrial customers

Deployed **401 Electric Vehicles (EVs)**, including 301 technical operational vehicles and 100 corporate vehicles

Signed the first **Corporate Renewable Energy Supply Scheme (CRESS)** bilateral agreement to supply **500 MWac** to power data centres in Malaysia



Recorded **zero** environmental non-compliance related to effluent management

**100%** of employees received training on Safety and Health standards (2024: 40.06%)



**Women's** representation in leadership roles:

- Board of Directors: **33%** (2024: 33.33%)
- Senior Management: **27%** (2024: 24.8%)



Invested **RM203.9 million** in 1,988,642 training hours to build **energy transition (ET)** capabilities (2024: RM197 million; 1,346,477 training hours)

Exceeded the target of installing more than **1 million smart meters** in 2025, surpassing **5 million** smart meters installed since 2014

Rolled out **Time-of-Use (ToU) Tariff** to promote off-peak usage, attracting close to 102,000 subscribers

Maintained world-class results in 2025 with **SAIDI at 46.93 minutes**, **SAIFI at 0.95 occurrences** and **Transmission System Minutes at 0.1537 minutes**



Achieved **water savings** of **2,181 m<sup>3</sup>** (✓ 3.4% compared to 2024)

Established **E-Waste Collection Centre** at TNB HQ

**547,444 metric tonnes** diverted of total waste diverted from disposal



## OUR SUSTAINABILITY PERFORMANCE

**99.8%** of employees received training in **anti-corruption** (2024: 100%)

**51 members** of the middle and Top Management across TNB and its subsidiaries completed the **Chief Integrity Officer Programme** (2024: 41 members)



Successfully deployed two large-scale **Battery Energy Storage System (BESS)**, strengthening grid resilience and power stability:

- Commissioned BESS ahead of schedule in Santong, Terengganu, in April 2026 - Peninsular Malaysia's **first smart energy bank**
- Began operations of the **100 MW/400 MWh** Lahad Datu BESS in Sabah in August 2025



Invested **RM3.4 million** in **biodiversity** initiatives, including protecting natural habitats, conserving natural resources and fostering migratory waterbirds



Invested **RM232.3 million** in **Corporate Social Responsibility**, >1% of Profit After Tax (RM 101.34 million) (2024: RM 63.78 million)



Invested **RM20.8 billion** in local procurement, including RM11 billion in local Bumiputera spending, with **1,264 Bumiputera** vendors successfully onboarded under the **PV 3.0 programme**



## ESG RATING



MSCI ESG Rating

**AA**  
(March 2026)



CDP Climate Score

**C**

CDP Water Score

**C**



FTSE4Good

FTSE Russell ESG  
Rating Score

**4.0**  
(December 2025)

FTSE4Good ESG  
Rating Grading Band

**4 Star**  
(December 2025)



Sustainalytics ESG  
Rating Score

**26.3**  
(May 2025)

## CREDIT RATINGS

### INTERNATIONAL RATING AGENCIES

S&P Global Ratings

**A- Stable**

Moody's Ratings

**A3 Stable**

### LOCAL RATING AGENCIES

RAM Rating Services  
Berhad (RAM)

**AAA Stable**

Malaysian Rating  
Corporation Berhad (MARC)

**AAA Stable**

## AWARDS AND RECOGNITIONS

- ▶ **Awarded Brand of the Year 2025–2026** at the World Branding Awards under the Energy – Power category (Malaysia)
- ▶ Recipient of three awards at the Asian Power Awards 2025: Innovative Power Technology of the Year – Malaysia, Smart Grid Project of the Year – Malaysia, and Information Technology Project of the Year – Malaysia
- ▶ Recipient of three awards at the Enlit Asia Power & Energy Awards 2025: Winner – Energy Storage Project, Runner-up – Transmission & Distribution Networks, and Runner-up – Power Utility Project of the Year
- ▶ **Winner of the Data & AI category** at the Asean Innovation Business Platform (AIBP) Enterprise Innovation Award 2025
- ▶ Recipient of the award for highest returns to shareholders over three years (Super Big Cap category – above RM40 billion market capitalisation) at The Edge Billion Ringgit Club Awards 2025
- ▶ myTNB App recognised as the **Best Public Utility App** by PC.com for the third consecutive year
- ▶ TNB Power Generation Sdn. Bhd. received the **Notable Achievement in Environmental Performance award** at the Prime Minister's Hibiscus Award
- ▶ Recipient of the Platinum Award for **Top Voted Employer 2025** in the Electrical & Electronics category
- ▶ Runner-up in the Energy Efficient Building (Large Green Building) category at the 2025 National Energy Awards (NEA)
- ▶ TNB Global Business Solutions Division **awarded Gold and recognised among the Top 20 Most Admired GBS/SSO for 2025**
- ▶ TNB Electron received the **Excellence in EV Infrastructure & Connectivity** award at the Malaysia Car of the Year 2025
- ▶ Recipient of the **ASEAN-OSHNET Best Practice Award**
- ▶ TNB's former President/Chief Executive Officer, Datuk Ir. Megat Jalaluddin Megat Hassan, was named **MADANI Best CEO of the Year**
- ▶ TNB Integrated Learning Solution Sdn. Bhd. (ILSAS) garnered the **Silver Award for Sustainable Talent Development & TVET Innovation** at the META 2025 Awards



Ranked as the **second** strongest utility brand globally by Brand Finance



Achieved an **AAA** brand strength rating with a Brand Strength Index (BSI) score of 88.9/100



TNB Power Generation Sdn. Bhd. won **26 awards** at the MiSHA Asia Excellence Awards 2025



Recipient of the **Overall Excellence Award (Top 10)** and Industry Excellence Award (Utilities) at the National Corporate Governance & Sustainability Awards 2025

## JOINT LEADERSHIP STATEMENT

Dear Valued Stakeholders,

At TNB, sustainability is not a parallel agenda to the business. It is part of how we govern, operate and create value as Malaysia's national electricity utility. Since 2022, we have taken deliberate steps to strengthen this foundation and embed sustainability into every facet of our operations, guided by clear oversight from the Board of Directors ('the Board'), commitment from Management and strategic action across the organisation.

As TNB moves forward, our commitment to integrating sustainability continues in our decision-making, with the Board and Management aligned in sustaining the direction that has been set. We recognise that stakeholders expect continuity, particularly as the energy transition gathers pace and sustainability expectations become more demanding. Our responsibility is to ensure that TNB continues to advance this agenda with discipline, while keeping sight of the national role we play in providing secure, reliable and affordable electricity.

### Sustainability Embedded Across TNB

Embedded across governance, operations and value creation as Malaysia's national electricity utility



### Board and Management Alignment

Board and Management remain aligned in advancing sustainability through disciplined execution and strategic action



### National Responsibility Sustained

We remain committed to providing secure, reliable and affordable electricity for all Malaysians



Tan Sri Abdul Razak Bin Abdul Majid  
Chairman

Datuk Ir. Ts. Shamsul Bin Ahmad  
President/Chief Executive Officer

## BALANCING ENERGY TRANSITION WITH NATIONAL RESPONSIBILITY

As the national electricity utility, TNB operates within the realities of the energy trilemma, where decarbonisation must be pursued alongside energy security and affordability. The transition will not be linear, and external developments, evolving system requirements and operational considerations may affect emissions performance in some periods.

Geopolitical developments in the Middle East and resulting volatility in global energy markets further reinforce the need for vigilance, system readiness and a diversified generation portfolio. Against this backdrop, TNB will continue to balance system reliability, affordability and near-term operational requirements while advancing the longer-term transition towards cleaner energy.

At the same time, we are strengthening demand-side management by empowering customers to adopt more efficient energy consumption behaviours. The rollout of smart meters and digital platforms such as myTNB has enhanced visibility of energy usage and enabled more informed decision-making through mechanisms including the Time-of-Use (ToU) tariff. These initiatives support more efficient energy use and contribute to maintaining affordability and system stability amid evolving energy market conditions.

Despite the near-term realities, we remain steadfast to realising our long-term direction. We are focused on accelerating Malaysia's transition towards Net Zero emissions by 2050, including the national target of achieving 70% renewable energy. This requires strengthening the grid and enabling higher integration of renewable energy, while ensuring that the electricity system continues to serve the needs of households, businesses and the wider economy. We will continue advancing our Carbon Management Strategy, including the Renewable Energy Expansion Plan to move towards the low-carbon economy.



Our actions reflect disciplined execution in advancing the energy transition. The commissioning of the 100MW/400MWh Battery Storage System (BESS) in Santong, Terengganu, ahead of schedule marks a significant milestone in strengthening grid resilience and supporting greater integration of renewable energy into the national grid. As Peninsular Malaysia's first smart energy bank (*Bank Tenaga Pintar*), the facility enhances system flexibility and stability in meeting the evolving needs of the national electricity system. This progress is further reinforced by the signing of a 500 MWac Bilateral Energy Supply Contract under the Corporate Renewable Energy Supply Scheme (CRESS) to power data centres, supporting the growing demand for sustainable energy solutions.

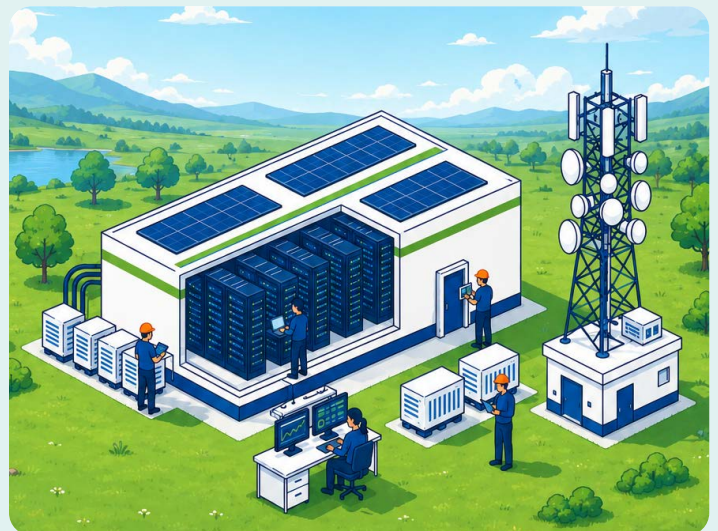
### Malaysia's first smart "energy bank"

commissioned ahead of schedule in Santong, Terengganu to strengthen grid flexibility, support RE integration and enhance electricity supply stability



### 500 MWac Bilateral Energy Supply Contract signed under CRESS

supporting sustainable power demand for data centres

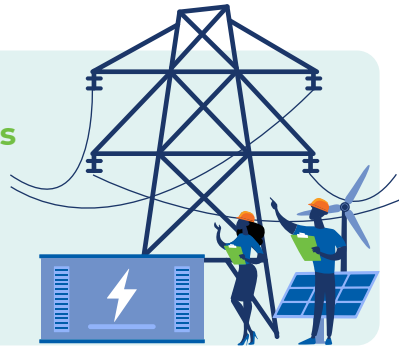


## JOINT LEADERSHIP STATEMENT

We will continue to modernise the grid to enhance resilience and support evolving system requirements, backed by the Incentive Based Regulation (IBR) framework. This includes RM43 billion in approved investments for 2025 to 2027 to strengthen grid reliability and enable Malaysia’s energy transition. The IBR framework has played a pivotal role in sharpening our focus on performance, reliability and service excellence. Over the past three Regulatory Periods, the framework has shaped a culture where delivering a stable and dependable electricity supply remains our foremost priority. Our performance continues to reflect this commitment, with the System Average Interruption Duration Index (SAIDI), System Average Interruption Frequency Index (SAIFI) and Transmission System Minutes maintained at world-class levels, reinforcing the effectiveness of the framework in driving accountability and operational excellence.

**RM43 billion approved investments (2025–2027)**

to modernise and strengthen grid reliability under the IBR framework



Our customer and brand metrics also strengthened during the year, reflecting the trust placed in TNB as Malaysia’s national electricity utility. We were ranked the second strongest utility brand globally by Brand Finance, while both our Customer Reputation Index (CRI) and Customer Satisfaction Index (CSI) had improved, underscoring our continued focus on delivering reliable service and positive customer experiences. These achievements reinforce stakeholder confidence in TNB’s reliable and resilient electricity system.

- **Brand Finance Energy 100 Report 2025:**  
Ranked #2 Strongest Utilities Brand in the World, BSI 88.9, AAA rating, USD2.3 billion brand value, +35% YoY
- **Brand Finance regional recognition:**  
Ranked as Southeast Asia’s top utility brand
- **World Branding Awards 2025–2026:**  
Winner of Brand of the Year, National Tier – Energy, Power

**Customer Reputation Index (CRI) increased to 88% from 82% in 2024, while Customer Satisfaction Index (CSI) reached 9.0**

## TREATING SUSTAINABILITY AS A BUSINESS DISCIPLINE

Sustainability is embedded in the way we manage risk, allocate capital, build operational resilience and identify opportunities arising from the energy transition. Despite challenges arising from global fuel market volatility and evolving operating conditions, our commitment to sustainability remains steadfast, guided by our conviction that it is fundamental to long-term value creation and the only viable pathway forward.

For TNB, this extends beyond decarbonisation, grid modernisation and new energy solutions. It includes protecting the safety and well-being of our people, developing future-ready capabilities and strengthening governance. Initiatives such as *Jom Turun Padang*- Occupational Safety, Health and Environment Management by Walking About (OSHE MBWA) brings top management closer to frontline operations, fostering opening engagements, site assessments, inspections and discussions through operational site visits. This is further supported by mandatory Group-wide safety training, employee well-being programmes and enhancements of HSE efforts through digitalisation.

In 2025, our Just Transition agenda continued to expand to encompass broader dimensions of sustainability and stakeholder inclusion. Through an investment of more than RM200 million in energy transition (ET) capability building under TNB’s learning arm, the Integrated Learning Solution Sdn. Bhd. (ILSAS), Warga TNB completed over 1.9 million training hours to strengthen future-ready ET competencies, reinforcing the Group’s long-term workforce resilience.



**More than RM200 million invested in energy transition capability building**

focused on workforce development and future-ready talent

In ensuring no one is left behind, we invested more than RM232 million in community development and social impact to strengthen energy literacy, widen access to education and empower communities across Malaysia. Through our Malaysian Energy Literacy Program (MELP), we promoted smart and sustainable living among thousands of Malaysians across society. To nurture the next generation while strengthening the nation’s social fabric, Yayasan Tenaga Nasional sponsored more than RM37 million in tertiary education scholarships. We also collaborated with strategic partners to give back to society through various Corporate Social Responsibility (CSR) programmes, ensuring holistic community outreach aligned with the Malaysian Government’s MADANI agenda.

Recognising that strong governance is fundamental to sustaining public trust and delivering long-term value, we continued to reinforce a culture of integrity, accountability and ethical leadership across the Group. Robust human governance principles, clear ethical

standards and greater transparency are embedded into our decision-making processes, strengthening organisational resilience while upholding the confidence placed in TNB as the nation's electricity utility. This included conducting Anti-Bribery Management System audits across 100% of TNB and three (3) subsidiaries, progressing to achieve full Group-wide coverage by 2027. Initiatives such as the Human Governance Programme, Integrity Health Index and the Training and Communication Plan were implemented to further strengthen our integrity culture.

Taken together, these areas shape the resilience and sustainability of our business. They influence how reliably we serve customers, how effectively we respond to disruption, how responsibly we deploy capital and how confidently we navigate changing expectations from regulators, investors, employees and communities.

By embedding sustainability into business decisions and everyday practices, TNB is better positioned to manage near-term pressures while preparing the Group for future demand, emerging technologies and the transition to a lower-carbon energy system.

**STRENGTHENING THE FOUNDATIONS FOR DELIVERY**

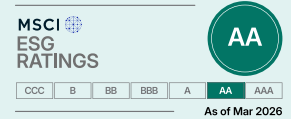
The Board and Management remain fully committed to advancing TNB's sustainability agenda with clear oversight, alignment and accountability across the organisation. This commitment continues to guide how we strengthen our foundations and deliver sustainable value over the long term.

TNB's significant improvement in its MSCI ESG Rating of AA in 2026 marks an important milestone in our sustainability journey. More than a rating outcome, it reflects cumulative progress in strengthening sustainability governance, disclosure practices and implementation discipline across the Group. The achievement also recognises the contributions of our people, whose work on the ground has helped translate sustainability commitments into practical action across environmental, social and governance areas.

At the same time, we continue our pursuit of fully adopting the International Sustainability Standards Board (ISSB) requirements, further enhancing the quality, consistency and credibility of our disclosures.

As we move forward, our focus is to deepen this integration. Sustainability must be visible not only in our disclosures, but also in the decisions we make, the investments we prioritise, the risks we manage and the way we operate every day. This reinforces our ability to deliver long-term sustainable value while upholding resilience and trust.

**MSCI ESG Rating upgraded to AA in 2026**



reflecting TNB's commitment to ESG governance, disclosure practices and implementation discipline

**ACKNOWLEDGEMENTS**

We are grateful for the continued trust of all our stakeholders, including the Government, regulators, investors, customers, partners, employees and communities. Their confidence and support have been instrumental in enabling TNB to advance its sustainability agenda while fulfilling its national mandate.

Our commitment is clear. TNB will continue to pursue sustainability as a source of business value as well as to increase system resilience and ensure long-term stakeholder confidence. The foundations built over the past three years form a stronger platform for us to advance our agenda with clear focus and accountability, ensuring that sustainability is embedded not only in what we report, but also in how we deliver value for the nation.



## OUR SUSTAINABILITY JOURNEY

## OUR SUSTAINABILITY JOURNEY

Sustainability in TNB has moved beyond a reporting requirement. It has become part of how we strengthen our business, respond to national priorities and prepare the Group for a changing energy landscape. As Malaysia's national electricity utility, our sustainability journey has been one grounded in practical execution, demonstrating our ability to not only navigate the evolving regulatory and sustainability landscape but to manage wider stakeholder expectations surrounding how we approach the energy trilemma.

Over the past three years, TNB has focused on building the internal foundations needed to make sustainability more embedded, measurable and actionable. This began with a clearer organisational structure, including the establishment of the Sustainability Division in 2023, followed by efforts to strengthen sustainability governance, enhance ESG data management and embed sustainability practices across our Business Entities. The purpose was not to create a standalone sustainability function, but to build the systems and accountabilities needed for it to be integrated into day-to-day business decisions.

### SETTING THE TONE FROM THE TOP

Embedding sustainability requires clear leadership direction. We have reviewed our sustainability governance structure to reinforce Board oversight and demonstrate the Group's commitment to driving sustainability from the highest level of the organisation. The establishment of the Board Sustainability and Risk Committee (BSRC) helped set a clearer tone from the top, with sustainability priorities cascaded from the Board to Management and across the Business Entities responsible for execution.

This governance foundation was important because sustainability could not be delivered through policies alone. It required alignment across leadership, business strategy, operational decision-making and ground-level implementation. By strengthening oversight and accountability, we created a more structured pathway for sustainability considerations to be reflected in how the Group manages risks, allocates resources and measures progress.

### BUILDING ESG DATA RESILIENCE THROUGH DIGITALISATION

A key step in this journey was strengthening how sustainability data is collected, monitored and used. As sustainability expectations became more granular, we recognised that stronger data discipline was needed to move from periodic reporting to more active management of ESG performance across the Group.

To achieve this, we digitalised and automated the collection of sustainability indicators through an in-house ESG dashboard, covering more than 400 indicators across the organisation. This gave us clearer visibility over source data, improved the consistency of information and enabled more structured monitoring of sustainability performance across Business Entities.

The dashboard also enables TNB to better understand the challenges faced by Business Entities in embedding sustainability into day-to-day operations, allowing us to develop targeted responses and strengthen the integration of sustainability into business processes. The initiative has also improved TNB's readiness to respond to evolving disclosure expectations, including the phased adoption of the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards S1 and S2 under the International Sustainability Standards Board framework.

### TURNING POLICIES INTO PRACTICE

With governance in place, the next priority was to translate sustainability from intent into execution. TNB's approach has been to move progressively from policies to initiatives, and from initiatives to actions that can be implemented within the business. This was necessary to ensure that sustainability did not sit only at Group level, but became part of how Business Entities plan, operate and respond to their respective responsibilities.

Our sustainability journey extends beyond emissions and environmental performance to include the safety, well-being and capability of our people, responsible governance, community impact, customer expectations and the resilience of the electricity system. Each of these areas supports the sustainability of the business and the trust placed in TNB as Malaysia's national electricity utility.

Embedding these considerations into day-to-day operations has enabled us to strengthen the connection between sustainability commitments and ground-level action. Business Entities are increasingly expected to understand how sustainability applies to their operations, where implementation challenges exist and what actions are needed to address them. This has helped shift sustainability from being a disclosure function to becoming part of business discipline, operational accountability and long-term value creation.

### STRENGTHENING CAPABILITY FROM WITHIN

Alongside sustainability governance and ESG data improvements, we focused on building sustainability capability from within the organisation. This was important because sustainability cannot be embedded effectively if it is driven only through external requirements or central reporting processes. It must be understood, owned and applied by the people closest to the business.

The Sustainability Division has worked closely with Business Entities to strengthen internal understanding of ESG priorities for the implementation of initiatives with tangible outcomes. This includes building awareness of how sustainability applies across different operating contexts to ensure that sustainability is not treated as an additional layer of work, but as part of how teams manage performance, risk and long-term business continuity.

With stronger internal capability and better ownership over our sustainability agenda, we are now better positioned to respond to changing standards, stakeholder expectations and operational realities. More importantly, it emphasises the principle that sustainability must be carried by the organisation itself, through everyday decisions and actions on the ground.

We are advancing our sustainability capability building through TNB's Centres of Expertise in carbon and biodiversity management established in 2025. This is further complemented by the Energy Transition and Sustainability Academy (ETSA) under TNB's Integrated Learning Solution Sdn. Bhd. (ILSAS). ETSA strengthens knowledge-sharing and capability development in the spirit of a Just Transition for our people, contractors and the community, while supporting the Group's energy transition and sustainability priorities.

### ADVANCING THE ENERGY TRANSITION THROUGH ECOSYSTEM COLLABORATION

While much of TNB's sustainability journey has focused on strengthening internal foundations, we recognise that the energy transition cannot be advanced by any single organisation alone. As Malaysia's national electricity utility, we actively engage across industry, technical and policy platforms to foster collaboration, share knowledge and align efforts across the broader energy ecosystem.

Through our participation in regional power cooperation, renewable energy, electric mobility, technical standards, business leadership and governance platforms, we contribute practical insights from Malaysia's electricity system while staying attuned to evolving sustainability priorities, transition pathways and stakeholder expectations. These engagements support a just and inclusive transition, ensuring that the benefits of the energy transition are shared across our stakeholders, including communities, customers, employees and industry partners.

As the energy landscape continues to evolve, we are deepening the integration of sustainability across the Group, recognising it as a core driver of long-term value creation for both the business and the nation. Building on the progress achieved, we remain focused on translating commitments into tangible outcomes, strengthening trust and ensuring that sustainability continues to be reflected in how we operate, invest and grow.

### ENHANCING ESG RATINGS TO DRIVE LONG-TERM VALUE

Our sustainability journey has been clearly recognised in external ESG assessments. We have consistently progressed from an MSCI ESG Rating of BBB to A in 2025 and AA in 2026, providing a highly credible external marker of strengthened sustainability governance, strategy and performance across the Group.

This progress is further reflected across other leading benchmarks, including FTSE4Good, Sustainalytics and CDP, demonstrating improvements not only in our internal sustainability performance but also in how we are positioned relative to global industry peers.

We recognise the achievement of ESG ratings as an important milestone, but it is not the finishing line. Rather, it signals that TNB is building stronger foundations to advance further, respond faster and create more durable value in a changing operating landscape.



*At TNB, sustainability is not a standalone agenda – it is embedded in our business decisions and long-term strategic priorities. This approach strengthens our organisational resilience in an increasingly dynamic operating environment. As we navigate the energy transition, we remain focused on building a resilient, future-ready electricity system that supports national growth while meeting the evolving expectations of our stakeholders.*

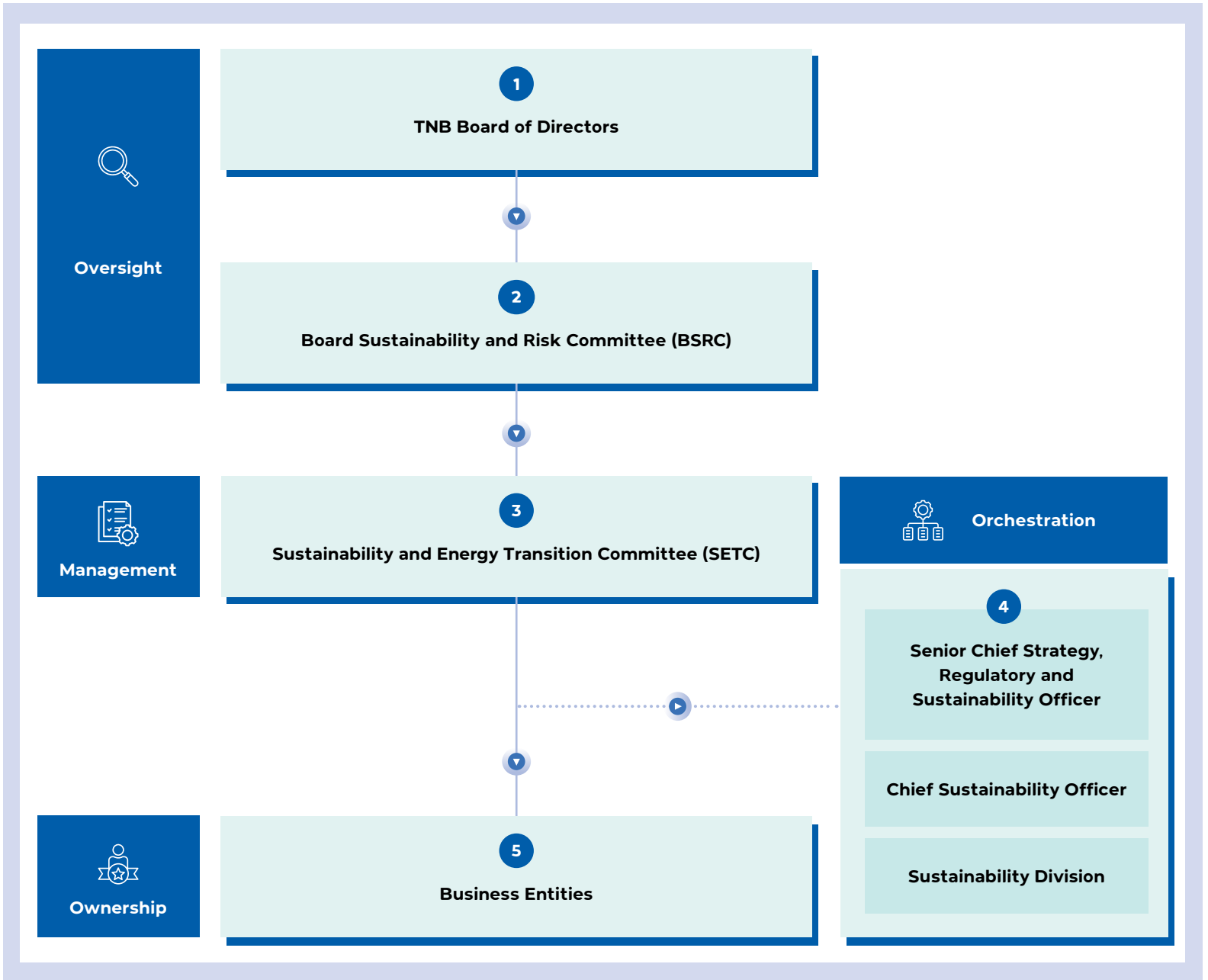
**Dato' Ir. Muhamad Nazri Bin Pazil**  
Senior Chief Strategy, Regulatory & Sustainability Officer

# SUSTAINABILITY GOVERNANCE

Our sustainability governance forms a part of the TNB Governance Framework and is aligned with the principles of the Malaysian Code on Corporate Governance (MCCG). The TNB sustainability governance structure is in place to facilitate oversight, strategic management and the implementation of sustainability strategies and initiatives at all levels.

## TNB SUSTAINABILITY GOVERNANCE STRUCTURE

IFRS S1.27(a)(i), IFRS S2.6(a)(i)



**1 TNB Board of Directors**

*IFRS S1.27(a)(i)(ii)(iii)(iv), IFRS S2.6(a)(i)(ii)(iii)(iv)*

The TNB Board approves the TNB sustainability pathway and strategies while overseeing their implementation and performances.

**2 Board Sustainability and Risk Committee (BSRC)**

*IFRS S1.27(a)(i)(ii)(iii)(iv), IFRS S2.6(a)(i)(ii)(iii)(iv)*

The BSRC assists the TNB Board in fulfilling its responsibilities by overseeing the robustness and effective implementation of the Group's sustainability and risk management framework, policy, strategy and initiatives to achieve business objectives and sustainability commitments.

Its core responsibilities include deliberating and recommending the sustainability strategy, framework and policy for TNB Board approval. The BSRC ensures the effective Group-wide deployment and execution of its strategy by considering sustainability-related and climate-related risks and opportunities. Furthermore, it is responsible for monitoring key performance against approved targets, reviewing the adequacy of allocated resources and investments, and ensuring the accuracy and compliance of the sustainability disclosures required by Bursa Malaysia.

 See IAR 2025 pages 276 to 278 for the TNB BSRC Report and pages 255 to 300 for the TNB Corporate Governance Statement.

**3 Sustainability and Energy Transition Committee (SETC)**

*IFRS S1.27(b)(i)(ii), IFRS S2.6(b)(i)(ii)*

The SETC, chaired by the TNB President/Chief Executive Officer and comprising TNB's Top Management, convenes monthly to deliberate and approve sustainability strategies, initiatives and targets with close monitoring of implementation progress. It drives the assessment and management of sustainability-related and climate-related risks and opportunities, ensuring sustainability integration into day-to-day business operations. Correspondingly, the SETC ensures that the Group's sustainability strategies, initiatives and performance are disclosed in a balanced, transparent and credible manner that meets stakeholders' needs and expectations.

**4 Senior Chief Strategy, Regulatory and Sustainability Officer, Chief Sustainability Officer and Sustainability Division**

The Senior Chief Strategy, Regulatory and Sustainability Officer steers the consolidated strategy, sustainability and long-term planning functions to strengthen strategic coherence, enhance stakeholder communication and ensure sustainability considerations are fully embedded into TNB's long-term decision-making and business direction.

TNB Chief Sustainability Officer leads the Sustainability Division as a strategic partner to TNB Business entities in driving positive sustainability impact and unlocking opportunities to achieve the Group's aspirations. The division executes this mandate through four (4) key pillars: strengthening sustainability governance, driving impactful outcomes through data-driven performance, reinforcing stakeholder trust and providing transparent and balanced sustainability disclosures.

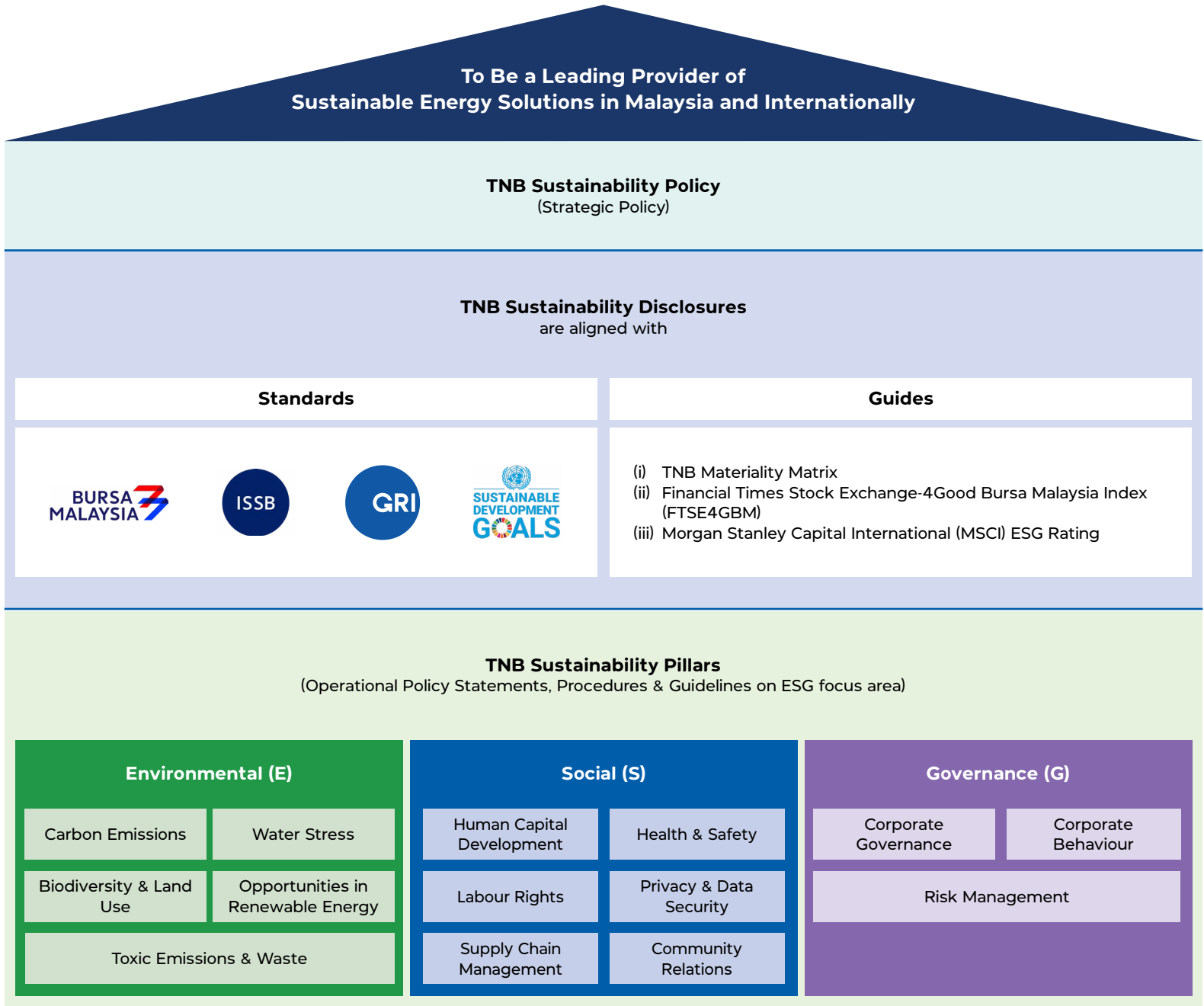
**5 Business Entities**

TNB business entities are responsible for assessing and managing their respective sustainability-related and climate-related risks and opportunities. This is achieved through robust controls, including thorough investment risk assessment and close performance monitoring, to ensure targets are met.

## SUSTAINABILITY GOVERNANCE

### TNB SUSTAINABILITY POLICY AND FRAMEWORK

The TNB Sustainability Policy is driven by a commitment to ethical, responsible and sustainable practices. This policy sets a course for environmental, social and governance excellence, aligning with legal requirements and international standards. Our aim is to drive positive change in the communities we serve, ensuring that our actions are sustainable and have a positive impact through 14 key focus areas in the Environmental, Social and Governance pillars of the TNB Sustainability Framework.





WE ARE TNB

# POWER GENERATION



TNB, through its subsidiary TNB Power Generation Sdn. Bhd. (TNB Genco), is Malaysia's largest power producer, contributing 52.4% generation market share in Peninsular Malaysia. In Sabah, generation activities are undertaken via Sabah Electricity, supporting the state's energy needs. Internationally, TNB's presence extends to the United Kingdom (UK), Australia and Türkiye through its New Energy Division (NED), reflecting a growing and diversified global footprint.

TNB Genco offers comprehensive asset management, operations and maintenance (O&M), maintenance, repair and overhaul (MRO), diagnostics, and engineering, procurement, construction and commissioning (EPCC) services, supporting strong operational performance. In line with the Group's Net Zero 2050 aspiration, TNB continues to transition towards cleaner energy solutions.

**Generation Capacity Mix:**

<b>Coal</b> <b>39%</b>	<b>Renewable Energy (RE)</b> <b>(Solar, Wind, Mini Hydro and Biomass/Biogas)</b> <b>10%</b>
<b>Hydro</b> <b>14%</b>	<b>Others (Oil &amp; Diesel)</b> <b>7%</b>
<b>Gas</b> <b>30%</b>	

Note:  
Based on Installed Capacity

**Total Number of Power Plants:**

**217 units**

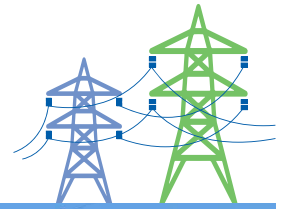
**Total Installed RE Capacity:**

**4,681 MW**

**Generation Market Share:**

**52.4%**  
of total Peninsular Malaysia Installed Capacity

# GRID



The Grid Division manages and operates the National Grid across Peninsular Malaysia, ensuring the safe, reliable and economical operation of the transmission system. Comprising 132 kV, 275 kV and 500 kV networks, the Division's core functions include strategy formulation, system planning, engineering, project management, maintenance and wayleave management. These activities are conducted in accordance with the Malaysian Grid Code, while grid operations in Sabah are managed separately by Sabah Electricity.

To facilitate regional energy exchange, the National Grid is interconnected with neighbouring systems. The northern link with the Electricity Generating Authority of Thailand (EGAT) consists of a 300 MW High Voltage Direct Current (HVDC) link and an 80 MW 132 kV High Voltage Alternating Current (HVAC) overhead line. The southern link connects to Singapore's transmission system at Senoko via 230 kV submarine cables with a capacity of 2 x 550 MVA, providing a firm capacity of 200 MW.

**Total Transmission Network:**

**29,744 km**

Peninsular Malaysia  
**26,594 km**

Sabah  
**3,150 km**

**Total Transmission Substations:**

**545 units**

Peninsular Malaysia  
**497 units**

Sabah  
**48 units**

**Total Transmission Transformers:**

**1,509 units**

Peninsular Malaysia  
**1,406 units**

Sabah  
**103 units**

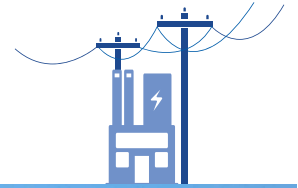
**System Minutes:**

Peninsular Malaysia  
**0.15 minutes**

Sabah  
**9.93 minutes**

WE ARE TNB

# DISTRIBUTION NETWORK



The Distribution Network Division operates as a regulated business entity responsible for the planning, construction, operation and maintenance of the distribution network across Peninsular Malaysia. As the final link in the electricity supply chain, the Division manages an extensive infrastructure of lines and substations at 33 kV, 11 kV, 6.6 kV and 0.4 kV voltage levels.

These assets are instrumental in delivering seamless electricity to over 11 million customers, representing the crucial endpoint of power delivery from generation plants to the end user. While the Division oversees these activities throughout the Peninsular, the distribution network in Sabah is independently managed by Sabah Electricity.

**SAIDI:**

**Peninsular Malaysia**  
**46.93 minutes**  
 2024: 47.88 minutes

**Sabah**  
**186.00 minutes**  
 2024: 203.65 minutes

**Total Distribution Transformers:**

**115,031 units**  
**Peninsular Malaysia**  
**105,556 units**

**Sabah**  
**9,475 units**

**Smart Meter Deployed:**

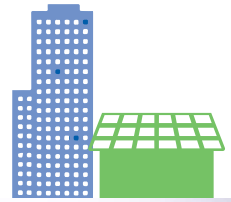
**5.6 million**  
 as at 31 December 2025

**Total Distribution Substations:**

**99,603 units**  
**Peninsular Malaysia**  
**90,142 units**

**Sabah**  
**9,461 units**

# RETAIL



Established in 2018, TNB's Retail Division is committed to creating value for customers, employees and shareholders by delivering customer-centric experiences across all engagement channels – Click, Call, Come Over and Go Over. This is supported by a strong presence across Peninsular Malaysia, comprising 13 state offices, 125 Kedai Tenaga outlets and 4 CareLine offices. In Sabah, the management of retail activities is undertaken separately by Sabah Electricity.

With a mandate that goes beyond energy, the division also develops smart energy solutions tailored to diverse customer segments, from large corporations and Small and Medium Enterprises (SMEs) to micro-businesses and residential users-supporting their transition towards a smarter, more sustainable energy lifestyle.

**Number of Customers:**

**11.39 million**

Peninsular Malaysia  
**10.66 million**

Sabah  
**0.73 million**

**Customer Satisfaction Index:**

**9.0**

**Customer Experience Index:**

**96%**

**Total Electricity Sales in Malaysia:**

**RM58,930.1 million**

Peninsular Malaysia  
**RM56,595.3 million**

Sabah  
**RM2,334.8 million**

**Total Energy Units Sold in Malaysia:**

**140,137.6 GWh**

Peninsular Malaysia  
**133,350.4 GWh**

Sabah  
**6,787.2 GWh**

**Our Customer Profile**

**For over 75 years, we have been committed to serving our industrial, commercial and residential customers.**



**INDUSTRIAL**

Industrial customers form the smallest segment by number but account for the largest share of electricity sales, reflecting their role in manufacturing and production across key sectors.



**COMMERCIAL**

Commercial customers, engaged in a wide range of economic activities, contribute the largest share of electricity sales, driven by business and service sector demand.



**RESIDENTIAL**

Residential customers represent the largest segment of our customer base, with approximately 9.4 million out of 11.39 million total customers. We continue to promote greater awareness and adoption of efficient energy use to support more sustainable consumption patterns.

Breakdown of Customers (Peninsular Malaysia and Sabah)



Residential  
**9,369,713**

Commercial  
**1,862,245**

Industrial  
**36,582**

Others  
**112,643**

Peninsular Malaysia 8,766,538 | Sabah 603,175

Peninsular Malaysia 1,748,735 | Sabah 113,510

Peninsular Malaysia 34,841 | Sabah 1,741

Peninsular Malaysia 105,841 | Sabah 6,802

## MEMBERSHIPS AND ASSOCIATIONS

TNB maintains an active presence in key energy and industry leadership associations, reinforcing its role as a strategic contributor to national and regional energy discourse and policy development.



The Heads of ASEAN Power Utilities and Authorities (HAPUA) is a key ASEAN platform promoting regional energy cooperation. TNB leads Working Group 5 on talent development and contributes to other 4 working groups, supporting initiatives such as the ASEAN Power Grid, ASEAN Plan of Action for Energy Cooperation (APAEC) and regional energy integration.



The Malaysian Industry-Government Group for High Technology (MIGHT) brings together public and private sector players to drive the growth of Malaysia's high-technology industry through strategic collaboration. As a Lead Member, TNB actively exchange insights and expertise to MIGHT's initiatives, helping shape national strategies for high-tech sector development.



The Association of the Electricity Supply Industry of East Asia and the Western Pacific (AESIEAP) fosters collaboration and innovation in power generation, transmission, distribution and electric vehicle integration. In line with its leadership role, TNB proudly hosted the CEPSI 2018 conference, reinforcing its commitment to regional energy advancement.



The 30% Club Malaysia Chapter advocates for a minimum 30% representation of women on boards and in senior management.



Malaysian Photovoltaic and Sustainable Energy Industry Association (MPSEA) is a non-profit organisation promoting Malaysia's photovoltaic (PV) industry by fostering collaboration, knowledge sharing and capacity building. As a registered member, GSPARX supports MPSEA's vision by investing in solar PV systems for retail electricity customers.



International Council on Large Electric Systems (CIGRE) is a global network of power system professionals advancing the industry through knowledge sharing. As a member, TNB contributes technical papers on emerging technologies, best practices and asset management.



International Conference on Electricity Distribution (CIRED) is a global platform for sharing advancements and best practices in electricity distribution. Established in 1999 by TNB Distribution leaders, CIRED Malaysia includes participation from various industry stakeholders. CIRED Malaysia members have been actively participating in CIRED International conferences and workshops by attending and presenting technical papers on engineering practice implementations and success stories.

## MEMBERSHIPS AND ASSOCIATIONS



CEO Action Network (CAN), led by private sector leaders, drives policy and action for sustainable development. TNB engages with CAN members to demonstrate collective commitment to sustainability.



Malaysia National Committee on Large Dams (MYCOLD) promotes knowledge exchange in dam engineering. As a Corporate Member, TNB, through TNB Power Generation Sdn. Bhd., supports dam safety and sustainability through knowledge-sharing and policy advocacy.



Malaysia Zero Emission Vehicle Association (MyZEVA) advocates for the adoption of Battery Electric Vehicles (BEVs) in Malaysia. As one of the founding members, TNB is currently the President of the association and actively supporting the BEV development programmes through funding and participation in the activities.



Malaysia Association of Energy Services Companies (MAESCO) promotes energy efficiency across sectors. As a registered member, TNB Energy Services Sdn. Bhd. support this effort by providing Energy Performance Contract to industrial and commercial customers, to supports its efforts to strengthen the energy services industries.



The Malaysian Gas Association (MGA) is the nation's leading advocate for the natural gas industry, playing a key role in fostering engagement and dialogue among stakeholders to support the development of a vibrant and sustainable gas industry. TNB's membership in MGA underscores its commitment to the National Energy Transition Roadmap (NETR), reflecting its role in supporting the power sector's transition, where gas is recognised as a critical transition fuel in Malaysia's pathway towards net zero by 2050.



As a key UK-Malaysia business network, British Malaysian Chamber of Commerce (BMCC) acts as a strategic bridge connecting TNB with investors, industry leaders and policymakers across both markets. TNB's membership enables structured market access through trade facilitation, business matching and high-impact networking platforms, while strengthening education partnerships with UK institutions for research, talent development and global visibility. It also provides a platform for policy engagement, allowing TNB to contribute to bilateral dialogues and position itself as a regional leader in energy transition and ESG.

# TNB VALUE CHAIN AND VALUE CREATION

IFRS S1.3, S1.44(a)(i)(iii), S1.30, S1.58, S1.59(a), S1.B22-B23, S1.B28; IFRS S2.25(a)(i)(iii), S2.10(a)

Anchored on the Reimagining TNB 2.0 strategy, Tenaga Nasional Berhad evaluates sustainability-related and climate-related considerations across the TNB value chain, spanning key inputs and dependencies, core operational activities and the outcomes generated for stakeholders. This value chain perspective enables the Group to understand how developments across the energy supply chain, internal operations and end user relations may influence its performance and long-term value creation.

TNB Group continues to derive the majority of its revenue from the sale of electricity. Independent Power Producer (IPP) plants and internal generation assets contribute to the overall generation portfolio supporting electricity sales. For financial reporting purposes at the Group level, revenue attributable to IPP plants and internal generators is fully eliminated from total Group revenue. Before considering the elimination done for financial reporting purposes, coal and gas account for 15.2% and 7.0%, respectively, whereas renewable energy (RE) contributes 2.6%. In 2025, 63.0% of TNB Group's property, plant and equipment (PPE) cost relates to its regulated network, while generation assets comprise most of the remainder: coal (15.2%), RE (12.9%) and gas (4.2%). The remaining 4.7% of PPE is attributed to other business operations.

# TNB VALUE CHAIN AND VALUE CREATION

## INPUTS & DEPENDENCIES

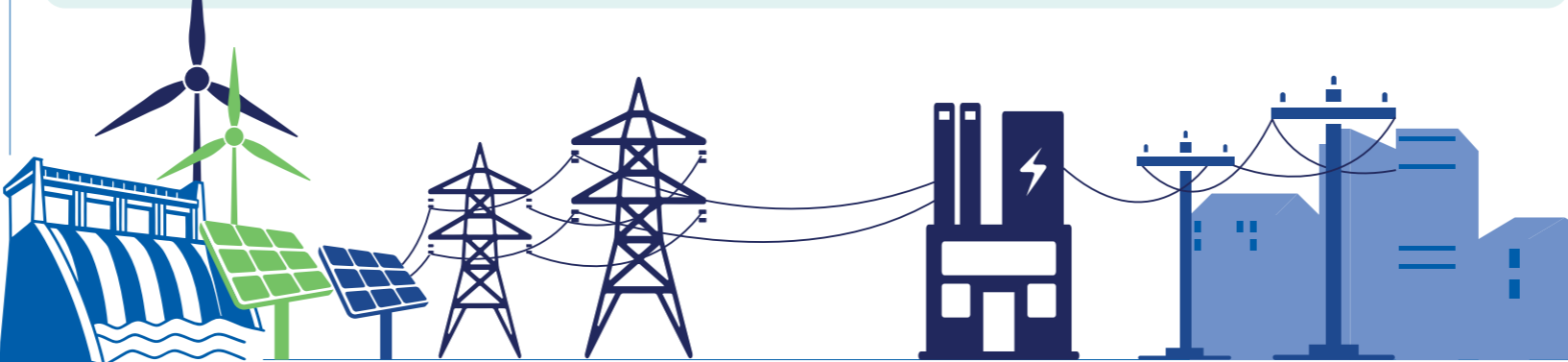
- FC FINANCIAL**
  - Shareholders' Funds: **RM52,974.0 million**
  - Effective Weighted Average Cost of Funds: **4.6%**
  - Total Borrowings: **RM59,085.7 million**
  - Cash and Cash Equivalents: **RM10,652.3 million**
- MC MANUFACTURED**
  - Power Generation Assets**
    - Thermal Generation Capacity (Equity-Based Ownership)
      - Coal-Fired Plants: **6,790 MW**
      - Gas-Fired Plants: **4,587 MW**
      - Oil, Diesel & Solar Hybrid: **266 MW**
    - Renewable Energy Capacity (Equity-Based Ownership)
      - Large Hydro: **2,640 MW**
      - Solar, Mini Hydro, Wind & Biomass/Biogas: **1,650 MW**
  - Power Network Assets**
    - Transmission Lines: **29,744 km**
    - Transmission Substations: **545 units**
    - Distribution Network Lines: **736,015 km**
    - Distribution Network Substations: **99,603 units**
- HC HUMAN**
  - Staff Expenditure: **RM4,034.6 million**
  - Average Training Hours per Employee per Year: **57.56 hours**
  - Total Training Hours: **1,988,642 hours**
  - Investment in Learning and Development: **RM203.9 million**
  - Employees Completed Learning and Development Programme: **34,552**
- IC INTELLECTUAL**
  - Investment in Research and Development: **RM85.7 million**
  - Operational & Service Innovations
  - Established Green Lane Pathway to Streamline On-Boarding Process for Data Centres
- SR SOCIAL & RELATIONSHIP**
  - Total Customers:
    - Peninsular Malaysia: **10.66 million**
    - Sabah: **0.73 million**
  - Donations and sponsorships for well-being, education, sports and the environment: **RM232.3 million**
- NC NATURAL**
  - Hydro: **7,380.92 GWh**
  - Solar: **1,023.61 GWh**
  - Biomass: **15.61 GWh**
  - Biogas: **9.90 GWh**
  - Wind: **447.17 GWh**

## ENERGY SUPPLY CHAIN

Procurement of supplies, works and services (Fuel, water, material)      Procurement of energy from Independent Power Producers

### TNB BUSINESS

<b>Power Generation</b>	<p><b>Deliver Clean Generation</b></p> <p>Grow clean energy and renewable energy domestically and phase global footprint</p>	<p>Malaysia, UK, Ireland, Australia, Türkiye and Saudi Arabia</p>	<p><b>Total Installed RE Capacity: 4,681 MW</b></p>	<p><b>Total Number of Power Plants: 217 units</b></p>
<b>Grid Network (Grid &amp; Distribution Network)</b>	<p><b>Develop Energy Transition Network</b></p> <p>Invest in grid flexibility for domestic energy transition</p> <ul style="list-style-type: none"> <li>Maintain security of supply</li> <li>Meet green energy demand growth</li> </ul>	<p>Malaysia</p>	<p><b>Total Length of Transmission Network: 29,744 km</b></p>	<p><b>Smart Meters Deployed: &gt;5.6 million as at 31 December 2025</b></p>
<b>Retail (Product &amp; Services)</b>	<p><b>Dynamic Energy Solutions</b></p> <p>Enhance customer service delivery</p> <ul style="list-style-type: none"> <li>Enable customer participation in the green energy space</li> </ul>	<p>Malaysia</p>	<p><b>Number of Customers: 11.39 million</b></p>	<p><b>Total Energy Units Sold in Malaysia: 140,137.6 GWh</b></p>



## END-USER RELATIONS

Relations with Retail Customers      Relations with End Users

## OUTPUTS & BENEFITS

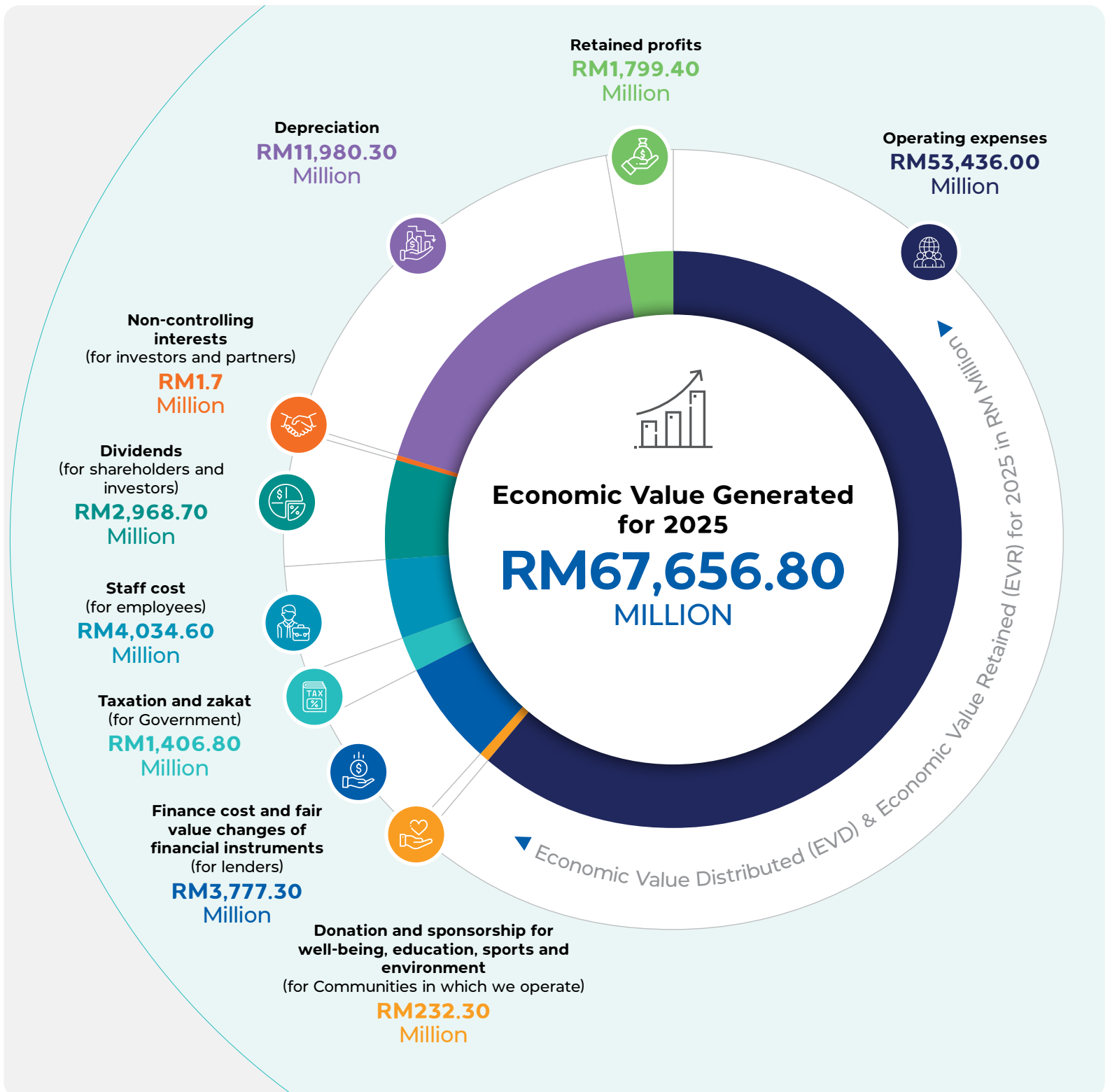
- FC FINANCIAL**
  - Revenue: **RM67,723.1 million**
  - Operating Profit: **RM8,532.1 million**
  - Net Profit Attributable to Owners of the Company: **RM4,768.1 million**
  - Total Dividend: **RM3,089.5 million**
- MC MANUFACTURED**
  - Equivalent Availability Factor (EAF) for Power Generation
    - Peninsular Malaysia: **87.7%** | Sabah: **73.2%** | International: **94.5%**
  - System Minutes for Grid
    - Peninsular Malaysia: **0.15 minutes** | Sabah: **9.93 minutes**
  - System Average Interruption Duration Index (SAIDI) for Distribution Network
    - Peninsular Malaysia: **46.93 minutes** | Sabah: **186.00 minutes**
- HC HUMAN**
  - Organisational Competency Index (OCI): **89.5%**
  - Lost Time Injury Frequency (LTIF): **0.83**
- IC INTELLECTUAL**
  - R&D Technology Solutions and Services: **10**
  - Revenue from Commercialisation of Technology Solutions and Services: **RM28.9 million**
  - Employees Upskilled in Energy Transition Capabilities: **5,645**
  - Ranking in Brand Finance's Most Valuable & Strongest Utilities Brands 2025: **Ranking 2**
- SR SOCIAL & RELATIONSHIP**
  - Successful Graduates Under Yayasan TNB: **745**
  - Net Taxation and Zakat Paid: **RM7,741.8 million**
  - Customer Satisfaction Index (CSI): **9.0**
  - Regulatory Relationship Strength Index (RRSI): **96%**
  - Energy Literacy Level Under the Malaysia Energy Literacy Program (MELP): **82.33%**
- NC NATURAL**
  - GHG Emissions Intensity: **0.537 tCO<sub>2</sub>e/MWh\***
  - Total Rainwater Harvested for TNB Platinum: **around 8.37 megalitres**
  - TNB's Fleet Electrified: **401 vehicles**
  - Elevate Biodiversity and Sustainability Efforts: **approximately RM3.4 million**

\*Excluding external factors that lead to emissions intensity of 0.565 tCO<sub>2</sub>e/MWh in FY2025.

## DELIVERING ECONOMIC VALUE SUPPORTED BY ROBUST GOVERNANCE

TNB generates economic value primarily through its electricity generation and distribution operations, serving 10.66 million customers in Peninsular Malaysia. Guided by a robust governance framework, we generated an economic value of RM67,656.80 million in 2025, ensuring our operations continue to drive national growth. This value creation is shared among our various stakeholder groups, ranging from institutional investors to local communities, reflecting our commitment to a transparent and ethical framework for creating and sharing economic wealth.

We remain committed to our stable dividend policy of a 30% to 60% payout ratio and continue to prioritise significant spending on local vendors to support the domestic economy. By balancing substantial value creation with responsible distribution, including taxation, zakat and reinvestments into environmental and community-related programmes, TNB reinforces its critical role in the energy sector and its dedication to the socio-economic welfare of the communities it serves.



## STAKEHOLDER ENGAGEMENT

TNB has identified nine (9) stakeholder groups and engages with them through various engagement platforms. We highly value all our stakeholders and seek to create better relationships with them through continuous engagement, dialogue and transparent communication in our dealings. The objective is to create value for each stakeholder group, building trust and credibility while ensuring our actions are aligned with their needs and expectations.

**Engagement Frequency** **ATT** All the time **O** Ongoing **DY** Daily **MO** Monthly **B** Biannually **QT** Quarterly **AL** Annually **AN** As needed

### CUSTOMERS & COMMUNITIES

Engagement Platform	Engagement Frequency
One-Stop Centres ( <i>Kedai Tenaga</i> )	ATT
Call Centre	ATT
myTNB Mobile Application and Online Portal	ATT
Customer Surveys	MO
Social Platform Activities	ATT
Roadshows	AN
Campaigns	AN
One-to-One Engagements	AN
Email	AN
Outreach Programmes	MO
CSR Programmes	MO
Townhall Sessions	QT
Dialogue Sessions	AN
Sporting Events	DY

#### Topics and Areas of Concern

- Accessible, affordable and reliable supply of electricity
- New technologies such as the implementation of smart meters and their offerings, smart solutions, solar solutions and platform solutions
- Tariff matters
- Energy solutions and green products, including take-up rates of green and sustainable solutions
- Matters related to Personal Data Protection Act (PDPA) compliance
- Public facilities and basic infrastructure
- Compliance
- Energy literacy
- National sports development – hockey

### REGULATORS

Engagement Platform	Engagement Frequency
Meetings and Briefings	O
Site Visits	AN
Round-Table Sessions	AN
One-to-One Engagements	O
Outreach Programmes	O
Summits/Conferences	AL
Feedback Sessions	AL AN

#### Topics and Areas of Concern

- Regulatory and operational compliance
- Changes in the regulatory framework and electricity supply industry
- Disaster management and cybersecurity management
- Nation-building initiatives that stimulate economic growth through green energy and job opportunities, benefiting the *rakyat's* well-being
- The energy trilemma (Security, Affordability, Sustainability)
- ESG and Energy Transition initiatives
- Development programmes for local Bumiputera vendors
- Rural development initiatives

## STAKEHOLDER ENGAGEMENT

**Engagement Frequency** **ATT** All the time **O** Ongoing **DY** Daily **MO** Monthly **B** Biannually **QT** Quarterly **AL** Annually **AN** As needed

### TNB RETIREES

Engagement Platform	Engagement Frequency
Syndication and Engagements	<b>B</b>
Long Service Award and Retirement Ceremony	<b>AL</b>
Informal Sessions, Meetings, Webinar	<b>O</b>

#### Topics and Areas of Concern

- Retirees, well-being
- Alumni and alumni fund
- Impact of policies or policy revisions on retirees regarding benefits
- Business performance

### EMPLOYEES

Engagement Platform	Engagement Frequency
Townhall Sessions	<b>AL</b>
Turun Padang, Sesi Sampai & Santai, Sesi FB Live, Brown-Bag Sessions and Other Outreach Programmes	<b>O</b>
Online Portal (Intranet), Newsletters, Emails and Digital Boards	<b>ATT</b>
People Experience Surveys	<b>AL</b>
One-to-One Engagements	<b>AN</b>
Social Platform Activities	<b>AN</b>
Corporate Social Responsibility (CSR)	<b>AN</b>
Webinars	<b>AN</b>
Joint Consultative Council (JCC) at Corporate, Business Entity and Local Levels	<b>O</b>
Negotiations for Collective Agreements (CA)	<b>AN</b>
Syndication and Engagement	<b>AN</b>

#### Topics and Areas of Concern

- Employee well-being and workplace culture
- Performance, rewards and benefits
- Safety and health
- Talent and skill development
- Employee satisfaction
- TNB strategies and initiatives
- Mitigation and resolution of issues
- Impact of new policies or policy revisions on employees

### MEDIA

Engagement Platform	Engagement Frequency
Press Conferences, Meetings and Briefings	<b>QT</b> <b>AL</b>
Engagement Series With Media at State Level	<b>AN</b>
Meetings, Conferences, Webinars	<b>AN</b>

#### Topics and Areas of Concern

- Business strategy and performance, such as overall electricity demand growth and grid readiness
- Affordable tariffs
- Supply reliability
- Current and planned ESG efforts
- Energy literacy

## STAKEHOLDER ENGAGEMENT

Engagement  
Frequency

ATT All the time

O Ongoing

DY Daily

MO Monthly

B Biannually

QT Quarterly

AL Annually

AN As needed

## FEDERAL &amp; STATE GOVERNMENTS

Engagement Platform	Engagement Frequency
Meetings and Briefings	O
Site Visits	AN
Round-Table Sessions	AN
One-to-One Engagements	O
Outreach Programmes	O
Summits/Conferences	AL
Feedback Sessions	AL AN

## Topics and Areas of Concern

- Regulatory and operational compliance
- Changes in the regulatory framework and electricity supply industry
- Disaster management and cybersecurity management
- Nation-building initiatives that stimulate economic growth through green energy and job opportunities, benefiting the rakyat's well-being
- The energy trilemma (Security, Affordability, Sustainability)
- ESG and energy transition initiatives
- Development programmes for local Bumiputera vendors
- Rural development initiatives

## FINANCIAL COMMUNITIES

Engagement Platform	Engagement Frequency
Quarterly and Full Year Financial Results Disclosures	QT AL
One-to-One Engagement/Group Meetings With the Investment Community	O
Investor Conferences and Non-Deal Roadshows	AL
Annual General Meetings	AL
TNB Corporate Website's Investor Relations Section	AN
Bursa Filings and Press Releases	AN
Integrated Annual Reports and Sustainability Reports	AL
Email Updates to the Investment Community	AN

## Topics and Areas of Concern

- National Energy Transition Roadmap (NETR) Flagship catalyst projects, Market Aggregator (ENEGEM) and Third-Party Access (TPA) and tariff reforms
- Regulatory framework (Incentive-Based Regulations, Regulatory Period 4 and Imbalance Cost Pass-Through Mechanism)
- Energy Transition (ET) Plan initiatives and progress, such as decarbonisation strategy, renewable energy growth opportunities and capital expenditure plan for ET
- Business strategy and performance, such as overall electricity demand growth and grid readiness
- Financial management, including key areas such as financial sustainability, returns, fuel margins, working capital management initiatives, gearing, financial position and dividend

## STAKEHOLDER ENGAGEMENT

### NON-GOVERNMENTAL ORGANISATIONS & ASSOCIATIONS

Engagement Platform	Engagement Frequency
One-to-One Engagements	AL AN
Outreach Programmes	AN
Seminars	AN
Collaboration Sessions	AN
Social Media	AN
Meetings and Knowledge-Sharing Sessions	B

#### Topics and Areas of Concern

- Tariff-related matters
- Energy literacy
- Innovation in technology and renewable energy
- Quality of service
- Supply reliability
- Current and planned ESG efforts
- Environment and occupational safety and health

### VENDORS & PARTNERS

Engagement Platform	Engagement Frequency
Engagement and Briefing Sessions	AN
Dialogue Sessions	AN
Vendor Training and Awareness	AN
Joint Operation Centre	AN

#### Topics and Areas of Concern

- Industry support for business growth through financing opportunities, technology and solutions
- New business opportunities and future developments
- Safety and health
- Procurement processes
- Training and capability development
- Fraud and bribery awareness
- Tariff matters

# TNB MATERIALITY ASSESSMENT

IFRS S1.17,18,19,B 13-37

## OUR APPROACH

The materiality assessment ensures our strategies and sustainability goals align with evolving stakeholder needs and emerging business risks and opportunities. The Group Sustainability and Energy Transition Committee (SETC) has endorsed the approach for TNB's materiality assessment for FY2025, ensuring a holistic process that incorporates two (2) key lenses of focus:

IMPACT MATERIALITY	FINANCIAL MATERIALITY
refers to how the Group's business affects the environment, economy and people.	is where the Group identifies and assesses sustainability-related risks and opportunities that could reasonably be expected to affect its financial position, financial performance and cash flows, cost of capital, and access to finance over the short, medium and long term.

## WHAT MATTERS TO THE STAKEHOLDERS

The identification of the Group's sustainability-related and climate-related risks and opportunities was grounded in what matters most to its stakeholders. Through structured engagement sessions conducted across multiple platforms and frequencies, stakeholders articulated their key concerns and expectations relating to economic, environmental and social impacts. These inputs were consolidated and evaluated in collaboration with the respective business entities responsible for stakeholder relationships, with issues assessed based on priority and relevance.

This process resulted in the identification of 15 material topics (MT) representing the most significant sustainability themes to both TNB and its stakeholders. The topics were then mapped in accordance with the ISSB Standards, specifically IFRS S1 and IFRS S2, to assess their relevance to sustainability-related and climate-related financial disclosures. They were also benchmarked against the SASB Electric Utilities and Power Generators industry-specific standards, including Activity-Based Metrics covering generation, grid, distribution and retail operations. Matters identified as Stakeholders' Interests Beyond SASB Topics were incorporated to capture broader sustainability considerations.

Through this integrated impact materiality and standards alignment process, the 15 material topics were prioritised according to their relative significance. These topics form the foundation of TNB's Sustainability-related and Climate-related Risks and Opportunities.

TNB Material Topics		ISSB Standards - SASB Electric Utilities and Power Generators Sector	61 ISSB Indicators		136 Indicators to Support TNB Sustainability Narrative	
			IFRS S1/IFRS S2	SASB Activity-Based Metrics		
Our Climate Response and Energy Transition Strategy	MT 1 Energy Transition and Grid Resiliency	IFRS S2	Grid Resiliency	6	3	10
	MT 2 Greenhouse Gas Emissions and Energy Resource Planning		Greenhouse Gas Emissions	9	11	39
	MT 3 Climate Resiliency		Climate Change	2	-	-
	MT 4 Customer Experience and Energy Efficiency		End-use Efficiency and Demand	1	7	10
	MT 5 Water and Biodiversity		Water Management	7	-	4
	MT 6 Nuclear as a Future Clean Energy Source		Nuclear Safety & Emergency Management	-	-	-
Our Commitment to Advancing Sustainability Management	MT 7 Energy Reliability and Affordability	IFRS S1	Energy Affordability	4	-	1
	MT 8 Air Quality Management		Air Quality	6	-	-
	MT 9 Waste Management and Coal Ash Management		Coal Ash Management	2	-	13
	MT 10 Safety, Health and Well-Being		Workforce Health and Safety	3	-	16
Our Shared Path Towards Sustainability	MT 11 Business Ethics and Corporate Governance	Stakeholders' Interests Beyond SASB Topics	-	-	-	12
	MT 12 Labour Rights and Employment Culture		-	-	-	23
	MT 13 Community Development and Social Impact		-	-	-	2
	MT 14 Sustainable and Responsible Supply Chain		-	-	-	5
	MT 15 Digital Trust and Cybersecurity		-	-	-	1

## POWERING A RESILIENT AND SUSTAINABLE ENERGY FUTURE

As Malaysia advances towards its Net Zero ambition by 2050, TNB is committed to accelerating the transition to a low-carbon and inclusive energy system. As the nation's electricity provider, our approach is guided by a robust decarbonisation strategy aligned with Malaysia's National Energy Transition Roadmap (NETR). Through our Carbon Management Strategy and Renewable Energy Expansion Plan, we are progressing efforts to reduce, capture and offset emissions, with a target of achieving a 5% annual reduction in greenhouse gas (GHG) emissions. Our diversified generation portfolio underpins this transition, providing a balanced platform to support the shift towards low-carbon energy. We have made steady progress across both domestic and international projects, spanning utility-scale developments, hybrid renewable solutions and emerging low-carbon technologies.

Energy supply remains inherently exposed to external forces, including climate change, geopolitical developments and global fuel price volatility. In this dynamic environment, we work closely with the government and regulators to maintain a vigilant and proactive stance to anticipate challenges, manage risks and capture emerging opportunities. Our resilience enables us to respond effectively to changing conditions while maintaining system stability and meeting electricity demand. During periods of supply disruption, including the ongoing Middle East conflict, we optimise our generation portfolio to ensure continuity of supply, while advancing the energy transition towards a more sustainable and resilient energy system.

In navigating near-term supply constraints, we take a balanced approach to managing emissions while maintaining system stability. This includes optimising available resources in a manner that supports both energy security and longer-term decarbonisation objectives, alongside continued deployment of low-carbon and emerging technologies. This is reflected in the ahead-of-schedule commissioning of Battery Energy Storage Systems (BESS) in Santong, Terengganu in 2026 and the commencement of operations in Lahad Datu, Sabah in 2025, strengthening grid flexibility and supporting renewable energy integration. We have also advanced new supply arrangements under the Corporate Renewable Energy Supply Scheme (CRESS) agreement to power data centre operations, supporting the growing demand for sustainable energy solutions. As we advance decarbonisation, we are also broadening our generation portfolio through the exploration of additional low-carbon pathways, including nuclear energy, and by leveraging regional interconnections under the ASEAN Power Grid (APG) to support cross-border renewable energy collaboration. Our efforts are further underpinned by key approvals secured to meet future capacity requirements across our portfolio. These include extensions of existing assets and the development of new capacity in both domestic and international markets, strengthening supply reliability and supporting long-term system resilience. Supported by the Incentive-Based Regulation (IBR) framework, including RM42.8 billion in approved investments, we are strengthening grid reliability and enhancing system resilience to deliver affordable and sustainable energy.

Beyond energy security and transition, sustainability remains strongly embedded across our operations amid the changing landscape and global challenges. It continues to guide our decision-making and responsible growth, ensuring we create long-term value for stakeholders.












Initiatives such as circular waste management, natural resource conservation, ecosystem protection and biodiversity risk management are implemented to mitigate and minimise adverse environmental impacts of our operations. These include integrating reusable materials to minimise waste and conserving habitats and wildlife, among other environmental stewardship efforts that promote sustainable practices. We will continue to work closely with the relevant authorities, government agencies and other stakeholders to further conserve our natural resources and protect the environment for future generations.

As we navigate an increasingly complex and dynamic energy landscape, we remain focused on delivering a balanced transition that upholds energy security, affordability and sustainability. Our approach is anchored in strategic investments, operational strength and continued collaboration with key stakeholders to strengthen system resilience and enable the integration of cleaner energy.

Looking ahead, we will continue to advance our decarbonisation agenda while ensuring our operations remain responsive to evolving market conditions and national priorities. By building a more flexible, reliable and sustainable energy system, we are well positioned to support Malaysia's long-term growth and create enduring value for our stakeholders.

OPPORTUNITIES AND RISKS: STRATEGIC HIGHLIGHTS

OPPORTUNITIES

-  Diversified energy mix
  Adoption of low-carbon technologies
-  Advancement of waste transformation and cleaner generation
  Enhanced air quality
-  Modernisation of grid through investments
  Strengthened grid resilience through collaboration
-  Improved workplace health and safety
  Ethical and accountable work culture
-  Expansion of RE regionally and globally
  Exploration of nuclear power as a green energy source
-  Capability building
  Widened community access to energy stability
-  Sustainable energy solutions and services
  Environmental and natural resource protection
-  Resilient supply chain
  Strengthened cybersecurity and data protection



RISKS

-  Conflicting resources for RE expansion
  Technology constraints
-  Inadequate climate adaptation
  Ineffective marketing of green products and services
-  Challenges in water optimisation and biodiversity tracking
  Uncertainties in nuclear deployment
-  Infrastructure delivery challenges
  Challenges in fossil fuel reduction
-  Increased coal ash management risk due to delayed coal-to-gas transition
  Heightened ethical and workplace safety risks from growth and dispersion



TNB MATERIALITY ASSESSMENT

TNB MATERIALITY ASSESSMENT

**SUSTAINABILITY-RELATED AND CLIMATE-RELATED OPPORTUNITIES AND RISKS AT A GLANCE**  
 IFRS S1.4.4(a)(i)(iii), S1.30, S1.58, S1.59(a), S1.351.B22-B23, S1.B28; IFRS S2.25(a)(i)(iii), S2.10(a)

The assessment of sustainability-related and climate-related risks and opportunities of the 15 identified material topics was undertaken through a structured process. It considers both the potential for value creation and risk exposure, including their effects across TNB's value chain. Each risk and opportunity was evaluated for its potential financial implications, taking into account the Group's current performance as well as projected impacts across the short, medium and long term horizons.

The summary table presents the 15 material topics together with the associated sustainability-related and climate-related risks and opportunities, including quantified financial impacts where applicable.

**Time Horizon** S - Short (2026) M - Medium (2027-2030) L - Long (2031-2050) **Risk type only applicable for IFRS S2 topic** P - Physical Risk T - Transition Risk

**Value Chain** Energy Supply Chain End-Use Relation TNB Business Generation Grid Network Distribution Network Retail

IFRS S1.30(a)  
IFRS S2.10(a)

IFRS S1.30(b)  
IFRS S2.10(b) IFRS S1.32(b)  
IFRS S2.13 (b)

IFRS S1.29(d), 35(d)  
IFRS S2.16(d)

IFRS S1.30(a)  
IFRS S2.10(a)

IFRS S2.10(b)

IFRS S1.30(b)  
IFRS S2.10(c) IFRS S1.32(b)  
IFRS S2.13 (b)

IFRS S1.35(d)  
IFRS S2.16(d)

Material Topics	Opportunity	Time Horizon			Value Chain	Measurement of Financial Impact	Financial Impact				Risk	Type	Time Horizon			Value Chain	Measurement of Financial Impact	Financial Impact			
		S	M	L			Current	Short	Medium	Long			S	M	L			Current	Short	Medium	Long
<b>Climate-Related IFRS S2</b>																					
<b>Energy Transition and Grid Resiliency</b>	Expansion of the renewable energy business domestically and internationally	✓	✓	✓		Revenue	RM2.2 bil	<RM4 bil	RM4 bil – RM10 bil	>RM10 bil	Conflicting resources, including land and water bodies, for renewable energy expansion projects	T	✓	✓	✓		Unrealised Revenue	–	<RM50 mil	RM50 mil – RM450 mil	>RM450 mil
	Enhancing grid flexibility for higher renewable integration	✓	✓	✓		CAPEX*	RM1.4 bil – RM1.9 bil	<RM4 bil	RM4 bil – RM5 bil	>RM5 bil	Challenges in the implementation of a comprehensive smart grid	P	–	✓	✓		Unrealised Revenue	–	–	<RM50 mil	<RM50 mil
	Unlocking regional energy trading through the ASEAN Power Grid interconnections	✓	✓	✓		Revenue	RM45.9 mil	<RM50 mil	Assessment Is Ongoing	Assessment Is Ongoing	Uncertainties related to ASEAN Power Grid interconnections	T	✓	✓	✓		Unrealised Revenue	–	Unrealised Revenue <RM5 mil	Assessment Is Ongoing	Assessment Is Ongoing
<b>Greenhouse Gas Emissions and Energy Resource Planning</b>	Driving decarbonisation through lower-carbon technologies	–	✓	✓		Cost Avoidance	–	–	RM50 mil – RM450 mil	RM50 mil – RM450 mil	Technology constraints increase decarbonisation costs and delay transition efforts	T	✓	✓	✓		Cost Increase	–	<RM50 mil	RM50 mil – RM450 mil	RM50 mil – RM450 mil
	Providing Diversified Energy Mix for Energy Security	✓	✓	✓		Revenue	RM6.3 bil	RM5 bil – RM10 bil	>RM10 bil	>RM10 bil	Limited fuel resources restricting coal-to-gas transition and decarbonisation progress	T	✓	✓	✓		Cost Increase	–	<RM50 mil	<RM50 mil	<RM50 mil
<b>Climate Resiliency</b>	Enhancing climate resilience across generation and grid assets	✓	✓	✓		CAPEX	RM400 mil	>RM450 mil	>RM450 mil	>RM450 mil	Inadequate climate adaptation for TNB critical assets impacting the reliability of electricity supply	P	✓	✓	✓		Cost Increase	RM26.8 mil	RM50 mil – RM450 mil	<RM50 mil	<RM50 mil
<b>Customer Experience and Energy Efficiency</b>	Provision of sustainable energy solutions and services	✓	✓	✓		Revenue	RM135.4 mil	RM50 mil – RM450 mil	RM50 mil – RM450 mil	>RM450 mil	Ineffective marketing leading to slow uptake of green offerings	T	✓	✓	✓		Unrealised Revenue	RM34.7 mil	RM50 mil – RM450 mil	RM50 mil – RM450 mil	RM50 mil – RM450 mil
<b>Water and Biodiversity</b>	Optimising water use and environmental stewardship in power operations	✓	✓	✓		Cost Avoidance	Cost Savings RM1.3 mil	<RM50 mil	<RM50 mil	<RM50 mil	Challenges in executing water optimisation initiatives in power operations	T	✓	✓	✓		Cost Increase	–	<RM50 mil	<RM50 mil	<RM50 mil
	Biodiversity-integrated infrastructure planning	✓	✓	✓		CAPEX	RM35.6 mil – RM36.5 mil	<RM50 mil	RM50 mil – RM450 mil	RM50 mil – RM450 mil	Inadequate assessment and tracking of biodiversity net positive impact	T	✓	✓	–		Cost Increase	RM31.6 mil	<RM50 mil	<RM50 mil	–
<b>Nuclear as A Future Clean Energy Source</b>	Developer-owner-operator of nuclear power facilities	–	–	✓		Revenue	–	–	–	RM5 bil – RM10 bil	Technology uncertainty and public acceptance challenges impeding nuclear deployment	T	–	–	✓		Unrealised Revenue	–	–	–	<RM5 bil

\* The CAPEX is part of the Grid Modernisation Programme allocated within the total RP4 CAPEX of RM43 billion (inclusive contingent)

TNB MATERIALITY ASSESSMENT

TNB MATERIALITY ASSESSMENT

Time Horizon S - Short (2026) M - Medium (2027-2030) L - Long (2031-2050) Risk type only applicable for IFRS S2 topic P - Physical Risk T - Transition Risk

Value Chain Energy Supply Chain End-Use Relation TNB Business Generation Grid Network Distribution Network Retail

IFRS S1.30(a)  
IFRS S2.10(a)

IFRS S1.30(b)  
IFRS S2.10(b) IFRS S1.32(b)  
IFRS S2.13 (b)

IFRS S1.29(d), 35(d)  
IFRS S2.16(d)

IFRS S1.30(a)  
IFRS S2.10(a)

IFRS S2.10(b)

IFRS S1.30(b)  
IFRS S2.10(c) IFRS S1.32(b)  
IFRS S2.13 (b)

IFRS S1.35(d)  
IFRS S2.16(d)

Material Topics	Opportunity	Time Horizon			Value Chain	Measurement of Financial Impact	Financial Impact				Risk	Type	Time Horizon			Value Chain	Measurement of Financial Impact	Financial Impact				
		S	M	L			Current	Short	Medium	Long			S	M	L			Current	Short	Medium	Long	
<b>Sustainability-Related IFRS S1</b>																						
Our Commitment to Advancing Sustainability Management	<b>Energy Reliability and Affordability</b>	Grid modernisation to enhance system reliability, energy affordability and customer experience	✓	✓	✓		CAPEX	RM0.5 bil – RM0.9 bil	<RM5 bil	<RM5 bil	<RM5 bil	Infrastructure delivery challenges that may impede grid system reliability	-	✓	✓	✓		Unrealised Revenue	RM0.69 mil	<RM50 mil	<RM50 mil	<RM50 mil
	<b>Air Quality Management</b>	Enhancing air quality through transition to cleaner fuels	✓	✓	✓		Cost Avoidance	-	-	<RM50 mil	<RM50 mil	Operational and technological challenges in reducing fossil fuel dependency and improving air quality	-	-	✓	✓		Cost Increase	-	-	<RM50 mil	<RM50 mil
	<b>Waste Management and Coal Ash Management</b>	Transforming waste and ash management through coal phase-out and cleaner generation	✓	✓	-		Revenue	RM33.3 mil	<RM50 mil	<RM50 mil	-	Delayed coal-to-gas transition may elevate coal ash management risks	-	-	✓	-		Cost Increase	-	-	<RM50 mil	-
	<b>Safety, Health and Well-Being</b>	Enhancing workforce safety through digital and engineering solutions	✓	✓	✓		CAPEX	RM268.8 mil	>RM450 mil	RM50 mil – RM450 mil	>RM450 mil	Anticipated business growth and dispersed asset footprint increases workplace safety risks	-	✓	✓	✓		Cost Increase	RM1.8 mil	<RM50 mil	<RM50 mil	<RM50 mil
<b>Sustainability Topic</b>																						
Our Shared Path Towards Sustainability	<b>Business Ethics and Corporate Governance</b>	Maintaining good governance to drive an ethical and accountable workforce	✓	✓	✓		Cost Avoidance	-	<RM50 mil	<RM50 mil	<RM50 mil	Anticipated business growth and workforce expansion increases risk of unethical practices	-	✓	✓	✓		Cost Increase	-	<RM50 mil	<RM50 mil	<RM50 mil
	<b>Labour Rights and Employment Culture</b>	Upskilling and reskilling a future-ready workforce for Energy Transition	✓	✓	✓		Cost Avoidance	Cost Savings RM17.4 mil – RM22.7 mil	<RM50 mil	<RM50 mil	RM50 mil – RM450 mil	Challenges across diverse workforce for future-ready capabilities	-	✓	✓	✓		Cost Increase	RM18.7 mil	<RM50 mil	<RM50 mil	<RM50 mil
	<b>Community Development and Social Impact</b>	Drive community energy access and social empowerment	✓	✓	✓		Spend	RM232.3 mil	1% PAT	1% PAT	1% PAT	Corporate Social Responsibility programmes may deliver suboptimal social impact for beneficiaries	-	✓	✓	✓		Suboptimal Social Impact	-	3% of CSR Spent	2% of CSR Spent	1% of CSR Spent
	<b>Sustainable and Responsible Supply Chain</b>	Establish resilient supply chain for the Energy Transition	✓	✓	✓		Cost Avoidance	Cost Savings RM5.4 mil	<RM50 mil	<RM50 mil	<RM50 mil	Vendor readiness and cost competitiveness from enhanced sustainability expectations	-	✓	✓	✓		Cost Increase	RM54.2 mil	<RM50 mil	<RM50 mil	<RM50 mil
	<b>Digital Trust and Cybersecurity</b>	Strengthen cybersecurity and data protection across TNB's value chain	✓	✓	✓		Cost Avoidance	Cost Savings RM65.8 mil	RM50 mil – RM450 mil	RM50 mil – RM450 mil	RM50 mil – RM450 mil	Challenges in maintaining a proactive cybersecurity posture	-	✓	✓	✓		Cost Increase	RM9.4 mil	<RM50 mil	<RM50 mil	<RM50 mil

## TNB MATERIALITY ASSESSMENT

Detailed disclosures on the identified risks and opportunities are presented within each Material Topic chapter. Each chapter explains the topic's relevance to stakeholders and outlines the associated sustainability-related and climate-related risks and opportunities.

The narrative for each Material Topic is guided by the four core content requirements of the ISSB as follows:

### Governance In Action

We describe the established governance controls, including the roles and responsibilities of the Board and Management in overseeing the respective sustainability-related risks and opportunities (SRROs) and climate-related risks and opportunities (CRROs). We articulate how oversight, accountability and internal control mechanisms are embedded within our governance framework for each material topic.

### Strategy

Our sustainability approach is anchored on the RT 2.0, the overarching strategy for delivering long-term value to stakeholders. Leveraging the RT 2.0, we have identified sustainability-related and climate-related risks and opportunities across our value chain and these considerations are embedded in the strategic planning, capital allocation, and decision-making processes to meet the Group's financial and operational objectives.

Our strategic approach is articulated through the 15 material topics disclosed in this Sustainability Statement. This detailed focus demonstrates the Group's commitment to supporting national sustainability objectives and driving sustainable resource management, ultimately maximising long-term enterprise value.

### Risk Management

Risk management in TNB is governed by the TNB Risk Management Framework, which adopts the principles and guidelines set out in ISO 31000:2018: Risk Management - Guidelines. This framework, approved by the TNB Board, provides a structured and consistent approach for risk management implementation across the Group.

 [See IAR 2025 pages 293 to 300 in the Statement of Risk Management & Internal Control.](#)

### Our Performance

TNB Group monitors and reports sustainability performance using quantifiable indicators that are aligned with the ISSB IFRS Sustainability Disclosure Standard and GRI requirements, as well as industry-specific metrics.

Relevant metrics and targets are disclosed in the 'Our Performance' section of each of the 15 material topics in this Sustainability Statement. Robust data assurance processes are applied to uphold the accuracy, consistency, and comparability of these indicators, supporting performance management and progress tracking.

The TNB ESG Dashboard is a platform utilised to track and visually present the performance of the indicators, including historical trends. We are continually advancing our digitalisation efforts, striving toward near real-time performance monitoring.

**IFRS  
S2**

# OUR CLIMATE RESPONSE AND ENERGY TRANSITION STRATEGY

THIS SECTION INCLUDES THE FOLLOWING:

<b>MT 1</b>	<b>ENERGY TRANSITION AND GRID RESILIENCY</b>	<b>42</b>
<b>MT 2</b>	<b>GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING</b>	<b>55</b>
<b>MT 3</b>	<b>CLIMATE RESILIENCY</b>	<b>75</b>
<b>MT 4</b>	<b>CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY</b>	<b>84</b>
<b>MT 5</b>	<b>WATER AND BIODIVERSITY</b>	<b>96</b>
<b>MT 6</b>	<b>NUCLEAR AS A FUTURE CLEAN ENERGY SOURCE</b>	<b>112</b>



IFRS S2 MT 1 ENERGY TRANSITION AND GRID RESILIENCY



WHY IS IT IMPORTANT?

Malaysia's power system continues to evolve as the National Energy Transition Roadmap (NETR) progresses with increasing renewable penetration, electrification and changing customer demand. As the national utility that owns and operates the grid, TNB is responsible for advancing the energy transition through its Energy Transition Plan by strengthening governance, strategic direction and structured execution across the organisation. Efforts to modernise the grid network will be supported by significant investments approved under Malaysia's Incentive-Based Regulation (IBR) framework for Regulatory Period 4 (RP4).

Against a backdrop of global uncertainties, ensuring grid resilience is vital as the grid diversifies and decentralises, even as it faces growing exposure to climate and cyber risks. A resilient grid should withstand extreme weather events, adapt to higher renewable energy variability, manage emerging physical and digital threats and recover swiftly from disruptions. We are committed to developing a modern, flexible and climate-adaptive grid by strengthening infrastructure and enhancing operational readiness, digitalisation and smart grid capabilities. These are in line with TNB's key role in advancing regional energy integration through the ASEAN Power Grid (APG) to bolster higher RE penetration in Southeast Asia.

OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027-2030; Long: 2031-2050

Opportunity and Risk	Opportunity: Expansion of the Renewable Energy (RE) Business Domestically and Internationally				Risk: Conflicting Resources, Including Land and Water Bodies, for RE Expansion Projects			
<b>Description</b>	<p>We are accelerating RE expansion and exploration to enhance grid resilience amid ongoing global uncertainties. The transition offers us a timely opportunity to strengthen our position as a clean energy leader domestically. This includes the delivery of NETR flagship renewable projects involving the 2,500 MW Hybrid Hydro-Floating Solar (HHFS) and the 500 MW Centralised Solar Park. In the medium to long term, the HHFS initiative will also enable TNB to capture emerging opportunities in end-to-end green hydrogen production and derivatives, such as establishing a Green Hydrogen Hub in Terengganu, leveraging the renewable resources present at Lake Kenyir.</p> <p>Beyond these flagship ventures, TNB continues to expand renewable energy capacity through Large Scale Solar (LSS), Corporate Renewable Energy Supply Scheme (CRESS) and Corporate Renewable Energy Aggregation Mechanism (CREAM). Under the Feed-in Tariff (FiT) programme, TNB is also exploring opportunities in biomass, biogas and small hydro generation to diversify its clean energy mix. In parallel, TNB is strengthening hydropower capacity through new developments like the Nenggiri Hydroelectric Project and the life extension of the Sungai Perak hydro. Internationally, TNB is expanding its RE presence through investments in the UK, Ireland and Australia.</p> <p>Together, these initiatives position TNB at the forefront of Malaysia's energy transition, exploring its low-carbon generation portfolio, unlocking diversified revenue streams and reinforcing long-term resilience and investor confidence.</p>				<p>There is a significant opportunity for TNB to invest in Renewable Energy (RE), to manage energy security for the nation.</p> <p>While RE is a critical factor in driving the national energy transition, TNB's RE projects in Malaysia such as Large Scale Solar and Hybrid Hydro-Floating Solar are exposed to resource and infrastructure constraints. These include limited availability of strategic land and suitable water bodies for project development, high associated costs to secure these sites, as well as exposure to global supply chain disruptions for key components such as semiconductors and solar panels.</p> <p>Similar challenges arise in TNB's international RE expansion where in addition to supply chain and site availability constraints, regulatory and financing uncertainties need to be strategically mitigated.</p> <p>Collectively, these challenges may delay project delivery, increase development costs and impede RE capacity growth.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens TNB's low-carbon portfolio and value chain resilience through diversified RE assets and reduced fuel dependence.</li> <li>Enhances local supply chain participation and supports Malaysia's energy transition ecosystem.</li> </ul>				<ul style="list-style-type: none"> <li>Impedes TNB's renewable energy growth target and energy transition progress to achieve Net Zero by 2050.</li> <li>Impedes the transition from fossil fuel generation sources to clean energy.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Guides capital allocation to accelerate RE growth and grid readiness.</li> <li>Heavily integrated into TNB's RT 2.0 strategy via Pillar no.1 - Deliver Clean Generation.</li> <li>Promotes strategic partnerships and land optimisation to unlock large-scale domestic and regional RE opportunities.</li> </ul>				<ul style="list-style-type: none"> <li>Prioritises early site acquisition and diversify renewable energy project locations to reduce development delays and minimise exposure to land and water constraints.</li> <li>Explores strategic partnerships, joint developments, or long-term leasing arrangements to secure sustainable access to land, water resources and critical equipment for future RE expansion.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Improves RE revenue streams.</li> </ul>				<ul style="list-style-type: none"> <li>Delayed revenue realisation from new domestic and international RE investments.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Revenue RM2.2 bil	Revenue <RM4 bil	Revenue RM4 bil - RM10 bil	Revenue >RM 10 bil	-	Unrealised Revenue <RM50 mil	Unrealised Revenue RM50 mil - RM450 mil	Unrealised Revenue >RM450 mil

## ENERGY TRANSITION AND GRID RESILIENCY

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Enhancing Grid Flexibility for Higher Renewable Integration				Risk: Challenges in the Implementation of a Comprehensive Smart Grid			
<b>Description</b>	<p>TNB has the opportunity to support Malaysia's energy transition by enhancing grid flexibility to enable higher penetration of Variable Renewable Energy (VRE). As the national grid accommodates more solar resources, flexible system operations become essential to maintain reliability, stability and affordability.</p> <p>TNB is advancing AI-driven monitoring, predictive maintenance and automated network optimisation, allowing the grid to respond dynamically to VRE fluctuations. Additional flexibility levers include fast-ramping generation, grid-forming inverters and demand-side participation.</p> <p>The commissioning of the Battery Energy Storage System (BESS) in Santong, Terengganu ahead of schedule in 2026 reflects TNB's resilience and commitment to the energy transition. TNB will continue to actively seek opportunities to invest in utility-scale BESS domestically and internationally, particularly in capacity-constrained and high-VRE zones.</p>				<p>Growing demand from energy-intensive customers, particularly data centres, combined with Malaysia's strong commitment to achieve net-zero emissions, makes RE a critical pillar of the national energy transition. An advanced smart grid infrastructure is essential to manage high RE penetration and bi-directional power flow to ensure reliable and secure electricity supply.</p> <p>The implementation of a comprehensive smart grid is challenged by limitations across existing and new systems. Current transmission and distribution infrastructure was not originally designed to support advanced sensors, automated controls, or real-time monitoring, resulting in compatibility gaps when integrating modern technologies. Smart grid deployment also introduces large volumes of operational data that require robust capabilities for data collection, storage, integration and analytics.</p> <p>Without overcoming these challenges, the smart grid risks underperformance, leading to operational inefficiencies and constraining the RE growth required for Malaysia's energy transition agenda.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens system reliability and operational resilience by enabling the grid to manage higher variability and intermittency from VRE sources.</li> <li>Enhances integration across generation, grid and customer segments through AI-driven optimisation, energy storage, fast-ramping assets and demand-side participation.</li> </ul>				<ul style="list-style-type: none"> <li>Impede TNB's RE growth target and energy transition progress to achieve the Net Zero aspiration by 2050.</li> <li>Increased reliance on thermal power plants to maintain grid reliability and system stability.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Guides prioritisation of grid modernisation investments (including automation, storage, smart inverters and advanced analytics) to support Malaysia's RE targets and RT 2.0 ambitions (under Pillar no.2 - Develop Energy Transition Network).</li> <li>Supports long-term planning for flexible system operations to minimise curtailment, optimise dispatch and maintain affordability under higher VRE penetration.</li> </ul>				<ul style="list-style-type: none"> <li>Allocate capital for grid modernisation with advanced automation, real-time monitoring and self-healing technologies.</li> <li>Deploy systems such as WAMS and ADMS for real-time optimisation of transmission and distribution power flows.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Reduces long-term system costs by minimising curtailment losses, improving asset utilisation and deferring expensive reinforcement investments.</li> <li>Strengthens revenue sustainability by improving network performance and enabling future flexibility services and RE-related value pools.</li> </ul>				<ul style="list-style-type: none"> <li>Revenue shortfall from potential renewable energy curtailment due to grid system limitations in accommodating high RE penetration.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	CAPEX* RM1.4 bil – RM1.9 bil	CAPEX* <RM4 bil	CAPEX RM4 bil – RM5 bil	CAPEX >RM5 bil	–	–	Unrealised Revenue <RM50 mil	Unrealised Revenue <RM50 mil

\* The CAPEX is part of the Grid Modernisation Programme allocated within the total RP4 CAPEX of RM43 billion (inclusive contingent)

## ENERGY TRANSITION AND GRID RESILIENCY

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Unlocking Regional Energy Trading Through the ASEAN Power Grid (APG) Interconnections				Risk: Uncertainties Related to ASEAN Power Grid (APG) Interconnections			
<b>Description</b>	<p>The APG offers significant growth opportunities for TNB, positioning Malaysia as a strategic hub for regional clean energy trade. With ASEAN electricity demand expected to triple by 2050, the APG enables efficient sharing of renewable energy resources across borders. TNB is already playing a central role in expanding regional power trade, by facilitating 200 MW export to Keppel Electric (Singapore) under Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP) and 50 MW to Sembcorp under the Cross-Border Electricity Sales for Renewable Energy (CBES-RE) mechanism in 2024, supported by the ENEGEM platform.</p> <p>Building on this, the proposed 2 GW Malaysia-Singapore interconnector and the planned 1 GW upgrade of the Thailand-Malaysia link will substantially expand TNB's transmission capacity for future APG flows. Upcoming APG corridors, including the Vietnam-Malaysia-Singapore and Sarawak-Peninsular Malaysia interconnections will further present opportunities for TNB to unlock new regulated transmission revenues, non-regulated wheeling income and regional renewable energy trading services. By strengthening cross-border grid connectivity, TNB can enhance system flexibility, support greater renewable integration and position itself as a leading regional system integrator in an increasingly interconnected ASEAN energy market.</p>				<p>The implementation of the ASEAN Power Grid (APG) faces various uncertainties and complexities, carrying risk exposures that extend beyond technical issues. These exposures include matters related to cross-border tariff structures and foreign exchange fluctuations, which can lead to unpredictable revenues and threaten investment return.</p> <p>Crucially, the success of the APG is dependent on successful Government-to-Government collaboration to harmonise regulatory and legal frameworks, a process that is inherently complex. Furthermore, the project may face funding constraints, which, when coupled with potential weaker-than-expected regional electricity demand, create the exposure of stranded interconnector investments and undermine long-term viability.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Expands TNB's value chain beyond domestic operations by enabling cross-border power exchange, unlocking new regulated and non-regulated revenue pools.</li> <li>Enhances system flexibility to balance variable renewable energy through diversified regional supply sources, strengthening long-term grid resilience.</li> </ul>				<ul style="list-style-type: none"> <li>Cross-border energy trading uncertainty may affect TNB's regional market position.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Guides long-term investment prioritisation in interconnection assets and wheeling infrastructure under RT 2.0 and Malaysia's regional energy ambitions.</li> <li>Strengthens regional collaboration and scenario-based planning to optimise trading arrangements and ensure commercially viable cross-border models.</li> </ul>				<ul style="list-style-type: none"> <li>Continuous engagement with regional stakeholders to co-develop commercially attractive cross-border models.</li> <li>Apply scenario-based investment evaluations to manage market uncertainties and mitigate revenue risks.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Creates medium- to long-term earnings uplift from wheeling charges and energy trading margins as interconnection capacity is optimised.</li> <li>Supports diversified revenue streams and improved system efficiency from regional RE integration.</li> </ul>				<ul style="list-style-type: none"> <li>Unrealised revenue from energy trading due to weaker-than-expected regional electricity demand.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Revenue RM45.9 mil	Revenue <RM50 mil	Assessment is ongoing	Assessment is ongoing	-	Unrealised revenue <RM5 mil	Assessment is ongoing	Assessment is ongoing

**GOVERNANCE IN ACTION**

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

Given the significant investments required to modernise the grid and expand renewable energy integration, strong governance is essential. TNB has established clear roles and accountability across the Board, Management and business entities to ensure alignment between strategic direction, capital planning and operational execution. This governance structure enables disciplined decision-making, transparent oversight and effective coordination across the organisation as TNB undertakes the large-scale transformation of the national power system.

The TNB Board provides the highest level of oversight and is supported by the Board Finance and Investment Committee (FIC), which plays a key role in overseeing major energy transition investment proposals. The FIC deliberates investment and divestment proposals, assesses associated risks and endorses recommendations to the Board for approval, ensuring that decisions balance strategic intent, financial viability and risk-return considerations. Through this disciplined investment governance, TNB ensures that capital allocations, including those linked to the energy transition and grid resiliency, are aligned with long-term value creation and prudent financial management.

At the management level, the Group Executive Management Committee (GEMC) actively steers strategic alignment and makes decisive interventions on major initiatives that impact grid readiness.

At the operational level, energy transition and resilience efforts are firmly embedded within the Grid and Distribution operations through respective governance structures as shown in the table below.


Committee	Responsibility
Grid Asset Management Committee	Reviewing and approving all asset management matters, including strategies, policies, plans and both capital and operating expenditures. It also acts as GRID's IBR Council, approving and endorsing all IBR-related decisions
Grid Technical Committee	Reviewing and approving Grid engineering policies, standards and practices, including technical matters, new technology applications and all operational issues related to the grid and its equipment
Distribution Network Digital Governance Council	Evaluating digital initiatives for alignment with DN's digital priorities, system needs and technology direction
Incentive-Based Regulation (IBR) Council	Reviewing CAPEX utilisation, performance and alignment with regulatory parameters to ensure funds are deployed prudently and transparently
Smart Utility (SU) Steering Committee	Driving integration and harmonisation across all projects and initiatives under the masterplan, with the aim of strengthening synergies and achieving DN's strategic objectives

**STRATEGY**

IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c)

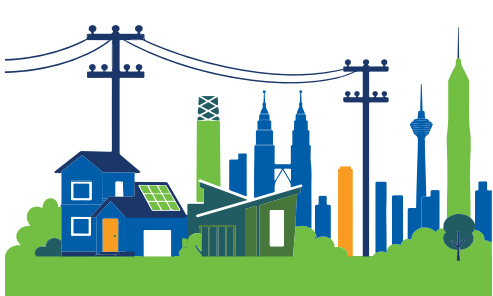
TNB's Energy Transition Plan is TNB's blueprint to achieve the Net Zero aspiration by 2050. In preparing to achieve this target, we ensure our grid system reliability and long-term readiness through three (3) pillars that accelerate generation decarbonisation, develop a flexible and cross-border grid and empower cross-sector electrification and prosumers.

**TNB ENERGY TRANSITION PLAN**




**Accelerate decarbonisation and clean energy expansion**

- A** Decarbonise thermal plants while ensuring security of supply
- B** Explore, invest and develop RE
  - Nenggiri 300 MW
  - NETR Solar Park 5 x 100 MW
  - NETR Hybrid Hydro Floating Solar 2.5 GW
- C** Invest in clean tech at scale
  - Hydrogen, ammonia co-firing, CCUS, nuclear
- D** Expand RE generation focus market



**Develop flexible, smart and cross-border network**

- A** Enhance Smart and Autonomous Grid and Distribution Network (e.g., DER integration, self-healing grid)
- B** Deploy flexible solutions (e.g. grid-scale storage, community storage)
- C** Deliver Renewable Energy Zones
- D** Catalyse ASEAN Power Grid



**Empower cross-sector electrification and prosumers**

- A** Power rapid data center growth
- B** Electrify mobility (e.g., 30 – 44 TWh EV demand by 2050) through grid upgrades, charging station build
- C** Unlock energy management solutions for prosumers (e.g. rooftop PV, EE)
- D** Scale industrial (e.g. iron, steel and cement) electrification solutions

## ENERGY TRANSITION AND GRID RESILIENCY



### PILLAR 1: ACCELERATE GENERATION DECARBONISATION

TNB is accelerating generation decarbonisation by enhancing the efficiency of its thermal fleet and progressing towards clean technologies such as hydrogen co-firing and carbon capture. These initiatives diversify Malaysia's generation mix, reduce exposure to fuel volatility and enhance flexibility during peak demand or weather-driven disruptions. In addition, we are aggressively expanding our RE capacity both domestically and internationally.

*For more information about our generation decarbonisation strategy, refer to the GHG Emissions and Energy Resource Planning chapter.*



### PILLAR 2: DEVELOP A FLEXIBLE AND CROSS-BORDER GRID

As we are implementing our ET plan towards achieving the Net Zero aspiration by 2050, grid resiliency is critical to ensure the system remains reliable while facilitating more RE into the system. Under the IBR RP4 period, the Energy Commission (EC) has approved a substantially higher CAPEX allocation compared to RP3. In addition, the EC has endorsed a dedicated Contingent CAPEX envelope reserved specifically for energy-transition initiatives and critical Transmission and Distribution network upgrades. These enhanced allocations will enable higher RE hosting capacity, modernise the grid and accelerate the development of a future-ready, resilient electricity network.

#### 1 PREPARING RENEWABLE ENERGY ZONES THROUGH STRONGER HOSTING CAPACITY AND BETTER PLANNING

We have consistently upgraded both grid and distribution systems to accommodate increasing renewable generation. This includes strengthening hosting capacity at key connection points and preparing the network to support future RE project locations. At grid level, the hosting capacity is expected to expand further through ongoing grid reinforcement initiatives and the implementation of technologies such as Battery Energy Storage Systems (BESS) to support grid-connected solar integration.

In 2025, TNB has spent RM0.3 billion on CAPEX on 500kV overhead lines Ayer Tawar - Lenggang project, which serves as the backbone of the national grid system. Technologies such as Dynamic Line Rating (DLR), energy storage and digital grid modelling allow TNB to safely increase the volume of RE transported without premature infrastructure upgrades. This improves asset utilisation and lowers long-term investment needs.

At the distribution level, technology such as the digital management systems voltage regulating transformer, community energy storage system and advanced analytics help manage higher solar penetration and avoid localised constraints. These capabilities improve network readiness for rooftop and commercial solar growth and support faster, more reliable connection approvals. Planning tools such as i-NET and the Asset Investment Planning and Management (AIPM) system integrate economic data, consumption trends and regional development indicators to guide long-term investment decisions. This ensures capital is deployed in the most effective locations, aligning with regulatory expectations and improving cost efficiency.

#### 2 ENERGY STORAGE SYSTEM

The transition to a high-penetration renewable energy (RE) landscape necessitates a resilient and flexible grid capable of managing the inherent intermittency of solar power. Battery Energy Storage Systems (BESS) are pivotal to this integration, enhancing grid-level reliability through energy shifting, ramp-rate control and the firming of RE output. By mitigating the technical challenges associated with high solar penetration, BESS installations enable renewable energy expansion without compromising system stability.

##### Utility-Scale Deployment and Grid Integration

Peninsular Malaysia's first grid-connected utility-scale BESS, a 100 MW/400 MWh facility in Santong, Terengganu, has started operation ahead of schedule in April 2026. This installation provides essential operational support through peak management and energy shifting to accommodate variable solar generation. This success builds upon the performance of the 100 MW/400 MWh Lahad Datu BESS in Sabah, which has been operational since August 2025. The Sabah installation has already demonstrated tangible impact by providing critical reserve capacity and measurably reducing load shedding on the East Coast grid.

**BESS SANTONG**

BESS at PMU 132/33 kV Santong, Dungun, Terengganu is a key initiative by TNB in support of Malaysia's National Energy Transition Roadmap (NETR). Successfully commissioned ahead of schedule, this facility represents a major milestone in Malaysia's transition toward a resilient energy landscape.

With a substantial capacity of 100 MW/400 MWh, capable of supporting approximately 40,000 homes in East Coast Peninsular Malaysia, the system plays a critical role in optimising the National Grid by enabling the seamless integration of renewable energy through peak shaving and load levelling. Furthermore, its ability to provide a rapid response to grid imbalances ensures enhanced frequency control and operational stability, directly contributing to the long-term reliability of the national energy infrastructure and supporting decarbonisation goals.



These early-stage investments establish a foundation for future large-scale storage initiatives under the Malaysia Battery Energy Storage Tender (MyBEST). Deployment of BESS is further enabled by regulatory frameworks such as Incentive-Based Regulation (IBR), which secures the long-term investment stability required for infrastructure of this scale.

Beyond strategically deploying BESS at critical grid locations, integrating energy storage directly with solar assets transforms variable generation into a firm, dispatchable power resource. This technical capability directly unlocks commercial scalability under the Corporate Renewable Energy Supply Scheme (CRESS), which grants corporate buyers direct grid access to renewable energy. Because high-availability digital infrastructure such as hyperscale data centres requires continuous, uninterrupted power, co-located storage serves as the key enabler of these high-value corporate contracts. This is demonstrated by the landmark 595 MW bilateral agreement under CRESS, where BESS-paired solar directly matches renewable generation with the 24/7 consumption profiles of modern data centres while supporting overall grid resilience.

**Optimising Distribution Networks and Community Impact**

At the distribution level, Community Energy Storage Systems (CESS) are deployed to optimise solar penetration within local networks. Pilot programmes in Elmina Township demonstrate how neighbourhood batteries stabilise local networks and facilitate increased rooftop solar uptake. By absorbing excess local generation and discharging it during peak demand, CESS ensures that residential communities can maximise their renewable capacity without compromising the integrity of local distribution infrastructure.

System Designation	System Capacity	Connection
CESS1: Substation No. 14	Lithium Ion 50 kW/76.8 kWh	400 V
CESS2: Substation No. 15	Lithium Ion 50 kW/150 kWh	
CESS3: Substation No. 16	Lithium Ion 280 kW/170 kWh	

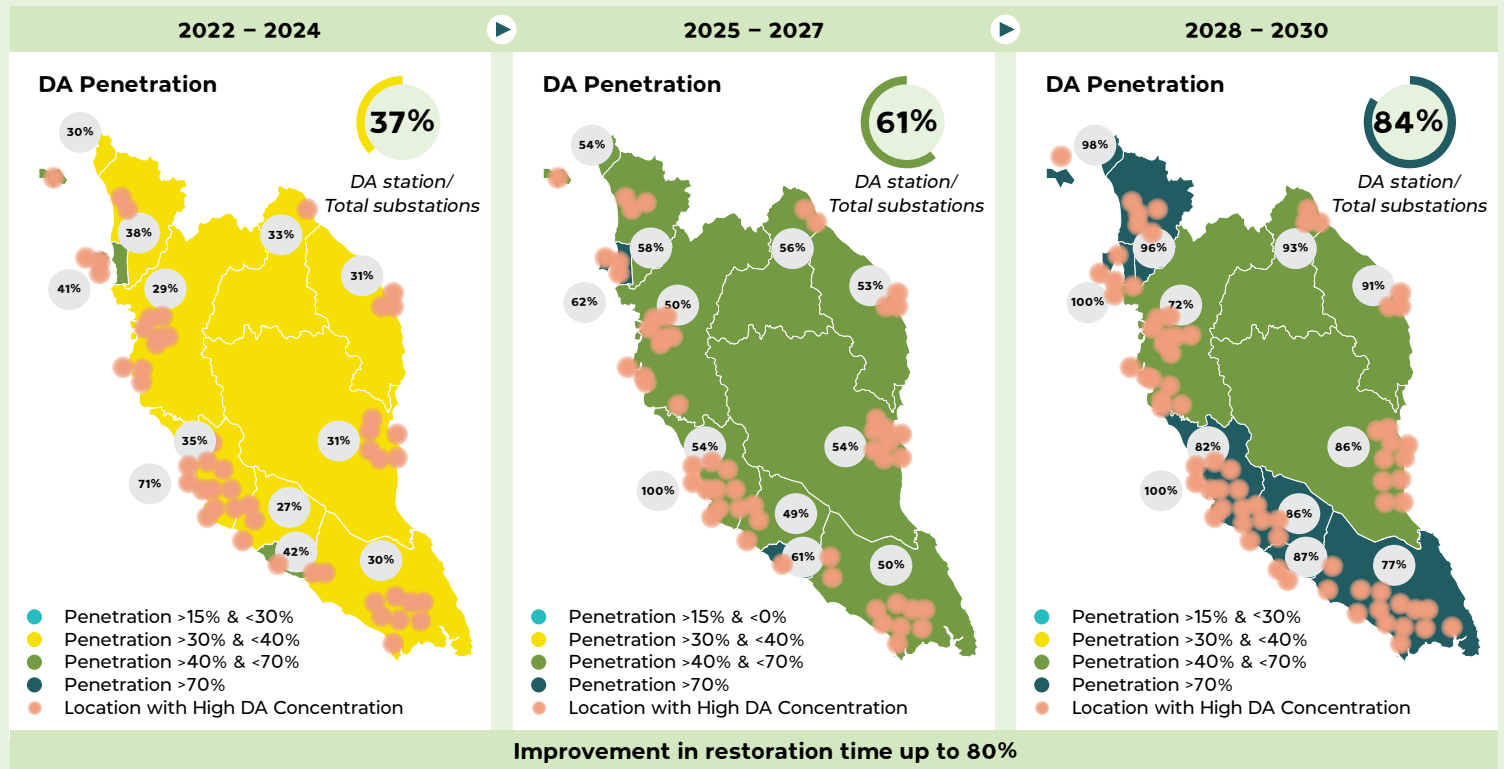
**Long-Duration Storage: The Future of Clean Baseload**

Beyond short-duration batteries, Long-Duration Energy Storage (LDES) provides the expanded capacity necessary to manage system-wide instabilities resulting from high RE penetration. We are currently conducting feasibility studies for Hydro Energy Storage Systems (HESS), identifying a potential capacity of 1,700 MW across existing hydro assets. These pumped-storage solutions capture excess energy by transferring water to elevated reservoirs during periods of low demand, discharging it to generate electricity during peak conditions. This progression toward LDES solutions facilitates the gradual transition from conventional thermal generation to a cleaner, firm baseload supply, securing the nation's energy future.

## ENERGY TRANSITION AND GRID RESILIENCY

### 3 BUILDING A SMART AND AUTONOMOUS GRID

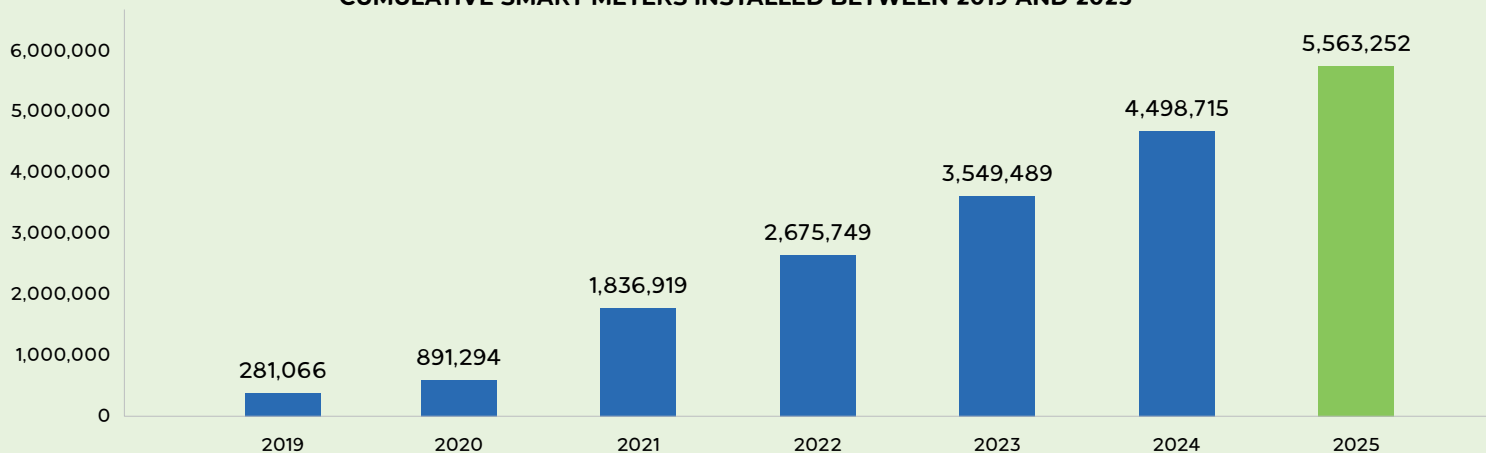
We continue to advance Distribution Automation (DA) in our substations, with a strong emphasis on remote monitoring and control capabilities. These efforts are aimed at enhancing the efficiency and reliability of our distribution network, ultimately benefitting our customers and supporting a more resilient energy system. Our operational efficiency has significantly improved, reducing the average restoration time for unplanned outages by 40%, with most outages now restored within just 15 minutes. In 2025, we equipped 5,102 substations, serving approximately 500,000 customers, with DA. Cumulatively, 38,007 substations, serving approximately 3.6 million customers, have been upgraded. We aim to expand DA coverage to 61% by 2027 and 84% by 2030; subjected to IBR Funding Approval.



To facilitate energy transition, manage RE and transition to smart systems, we need to deploy DA and smart meters. TNB is modernising its grid operations by deploying digital technologies that enhance real-time visibility, accelerate operational decisions and strengthen network safety. Key initiatives include automation at substations, advanced distribution management systems in control centres and the installation of smart meters.

Smart meters empower customers through real-time usage insights and enable flexibility management, energy efficiency actions and seamless participation in programmes, such as rooftop solar under the Net Energy Metering (NEM) scheme. TNB's utilisation of the Advanced Metering Infrastructure integrates smart meters, communication networks and data management system, improving accuracy and timeliness of energy data. For 2025, the target was to install 1,000,000 smart meters, with 1,064,537 smart meters installed as of the end of 2025. These upgrades improve system monitoring, strengthen outage response and prepare the grid for higher levels of renewable energy and Distributed Energy Resources (DER).

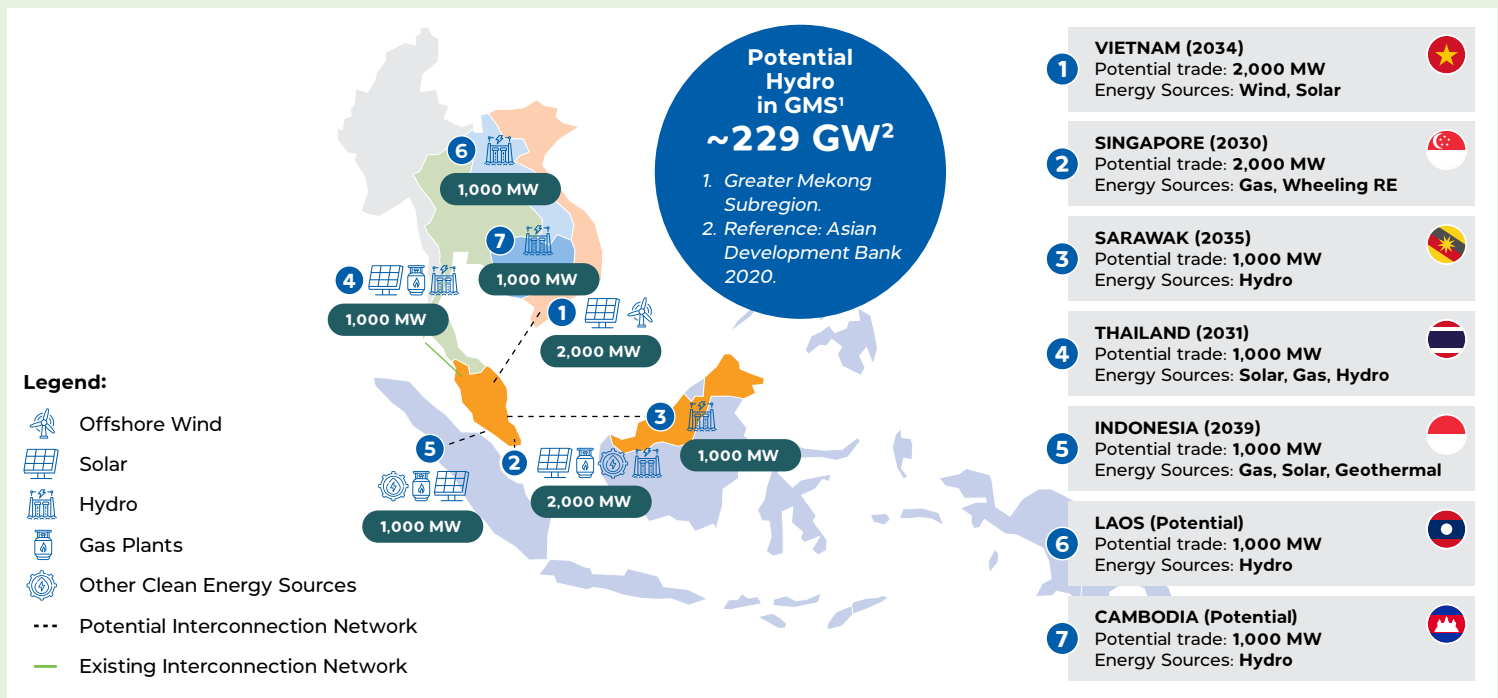
**CUMULATIVE SMART METERS INSTALLED BETWEEN 2019 AND 2025**



**4 STRENGTHENING REGIONAL CONNECTIVITY THROUGH THE ASEAN POWER GRID (APG)**

As a strategic enabler of regional connectivity, the APG integrates national power systems across ASEAN member states. Malaysia's existing interconnections with Thailand and Singapore have a combined capacity of around 1.4 GW, which enhance energy security and help stabilise grid frequency during emergencies.

As the national utility, TNB plays a central role in advancing regional interconnection to enhance energy security, support renewable energy integration and position Malaysia as a clean energy hub. Key APG initiatives include interconnection projects like the second Malaysia-Singapore link, the Peninsular Malaysia-Sarawak transmission connection, Malaysia-Thailand, Malaysia-Indonesia and the Vietnam-Malaysia-Singapore subsea interconnection. The total interconnection capacity is planned to go up to 7 GW, with each project expected to import around 1 GW of capacity into Malaysia.



As part of the Vietnam-Malaysia-Singapore initiative, TNB, together with regional partners, has entered into a Joint Development Agreement (JDA) aimed at harnessing Vietnam's extensive offshore wind potential for regional supply. The project envisions transmitting renewable electricity from offshore wind projects in Vietnam to Peninsular Malaysia via subsea cables, with the potential for onward interconnection to Singapore. Joint feasibility studies are underway covering grid interconnection architecture, transmission infrastructure requirements and the integration of energy storage to ensure stable and reliable power flows. Subject to regulatory approvals and commercial viability, the potential project is targeted for commercial operation by 2034.

Additionally, we have entered into a JDA to study a second electricity interconnection between Peninsular Malaysia and Singapore with SP Group and Singapore Energy Interconnections (SGEI). The proposed link could carry up to 2,000 MW and would increase cross-border power exchange between the two (2) countries. If approved, the interconnection is expected to begin operation by 2030.

In January 2026, we signed a tripartite Energy Wheeling Agreement Phase 2 (EWA Phase 2) under the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP 2.0) to facilitate the supply of up to 100 MW of renewable energy from Lao PDR to Singapore, with Thailand and Malaysia acting as energy wheelers. This agreement completes the implementation of LTMS-PIP 2.0, increasing total traded capacity from 100 MW to up to 200 MW, including additional supply from Malaysia to Singapore. The two-year agreement enables the sale, transmission and purchase of electricity generated in Lao PDR to Singapore via existing interconnection facilities, building on the Energy Supply Agreement signed with Keppel Electric Pte. Ltd. in September 2024 under Phase 1.

These interconnections support seasonal balancing, increase access to low-cost renewable resources and position Malaysia as a future hub for green energy trade. They also strengthen system adequacy and provide redundancy during supply disruptions. TNB's digital capabilities, including enhanced system visibility and advanced protection coordination, ensure readiness for future multi-country power exchanges.

To further strengthen regional electricity integration, Malaysia has taken a leading step by establishing the Energy Exchange Malaysia (ENEGEM), a platform for renewable energy trading. ENEGEM facilitated its first renewable energy export to Singapore in 2024. In 2025, the ENEGEM facilitated another round of auction exercise, attracting strong market participation following the Expression of Interest (EOI) issued in September 2025.

## ENERGY TRANSITION AND GRID RESILIENCY



### PILLAR 3: EMPOWER CROSS-SECTOR ELECTRIFICATION AND PROSUMERS

Our 10.66 million customers are central to TNB's purpose and strategy, guiding our decisions and initiatives to deliver reliable, accessible and sustainable energy services that meet evolving customer needs and expectations. We are empowering customers with innovative and sustainable solutions by enabling broad electrification through EV infrastructure, rooftop and community solar and smart-meter-enabled services. These initiatives diversify load profiles, enhance demand flexibility and support distributed resources that strengthen resilience at the local level.

*For more information about how we empower cross-sector electrification and prosumers, refer to the Customer Experience and Energy Efficiency chapter.*

#### Energy Transition and Climate Resilience Advocacy

TNB continued to demonstrate its commitment towards energy transition and climate resilience advocacy through active participation at COP30 in **Belém**, Brazil, in alignment with the TNB Energy Transition Plan, TNB Carbon Management Strategy and TNB Climate Adaptation Strategy. As Malaysia's national utility company and one of ASEAN's major energy players, several members of TNB's management formed part of the Malaysian delegation and contributed actively to strategic dialogues held at both the Malaysia and ASEAN Pavilions.

During COP30, TNB participated in and contributed insights through the following sessions: ASEAN Power Grid: Advancing ASEAN Resource Sharing or Collective Energy Transition Future-Proofing Infrastructure: Climate Adaptation Future-Proofing Industries: Strengthening Sustainable Supply Chains for Just Transition AI for Urban Resilience: Connecting Technology, Cities and People Global Lessons to Accelerate Malaysia's Energy Transition.

During these sessions, TNB shared thought leadership on advancing smart, flexible and cross-border grids to accelerate regional energy transition, developing climate-resilient power infrastructure through climate adaptation and supporting SMEs in realising sustainable supply chains to enable a just transition.

In alignment with the Malaysia Pavilion's COP30 overarching theme, "Climate Action Now: Net Zero Pathways Unlocked" and the COP30 central theme, "Global Mutirao", TNB highlighted the importance of regional and multi-stakeholder collective efforts in sustaining momentum towards decarbonisation while enhancing the resilience of the national power infrastructure against climate risks.



## RISK MANAGEMENT


*IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c)*

A resilient grid is essential for keeping electricity reliable as Malaysia faces more extreme weather, higher renewable variability and increasing digitalisation. These changes expose TNB to physical, operational, cyber and regulatory risks. At the same time, they create opportunities to strengthen the system through better design, smarter technology and more efficient investment. The sections below explain these risks and how TNB manages them.

### PHYSICAL RISKS

TNB faces growing physical risks from floods, storms, heatwaves and lightning that can damage grid assets, increase outage likelihood and elevate restoration costs. These weather-related disruptions may intensify over time and affect system continuity.

At the same time, strengthening the grid through climate-resilient design, asset hardening, digital monitoring and predictive tools offers opportunities to reduce outage impacts and extend asset life. Expanding interconnections under the APG also creates alternative supply pathways during domestic disruptions, improving long-term reliability and supporting national energy security.

 [For more information about how we manage physical risks, refer to the Climate Resiliency chapter.](#)

### OPERATIONAL RISKS


Operational risks arise from higher renewable variability, growing electrification and ageing network assets, all of which can affect system stability and power quality. Maintaining system stability becomes increasingly challenging as solar output fluctuates throughout the day and demand patterns evolve. To manage sudden frequency drops and prevent cascading outages, the Grid System Operator deploys Under-Frequency Load Shedding (UFLS) schemes that automatically curtail load in a controlled manner to stabilise the system during disturbances.

These risks also create opportunities to strengthen operational readiness through battery storage, reactive power optimisation, demand-response capability, distributed energy resource integration and advanced digital management systems. These enhancements improve early fault detection, shorten restoration time, support stable renewable integration and reduce operational costs, creating opportunities to deliver a more efficient and resilient electricity network.

### CYBER RISKS

As grid operations become increasingly digital, exposure to cyber threats that could compromise operational systems or customer data also increases. Maintaining strong cybersecurity controls is essential to protect service continuity.

Investments in advanced threat-detection systems, secure network architecture, enhanced monitoring and compliance with cybersecurity requirements strengthen the protection of critical infrastructure. These improvements also enable deeper digitalisation of grid operations and increase confidence among regulators, partners and customers.

 [For more information about how we manage cyber risks, refer to the Digital Trust and Cybersecurity chapter.](#)

## ENERGY TRANSITION AND GRID RESILIENCY

## OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>END-USE EFFICIENCY AND DEMAND</b>								
IF-EU-420a.2	Percentage of electric load served by smart grid technology	%	-	40.2	52.2	-	-	
<b>GRID RESILIENCY</b>								
<b>Average power outage duration (TNB)</b>								
IF-EU-550a.2 G4 - EU29	System Average Interruption Duration Index (SAIDI)	Minutes/ customers/ year	46.10	47.88	46.93	≤47	≤47	For TNB operations in Peninsular Malaysia.
IF-EU-550a.2 G4 - EU28	System Average Interruption Frequency Index (SAIFI)	Minutes/ customers/ year	0.80	0.96	0.95	-	-	For TNB operations in Peninsular Malaysia.
IF-EU-550a.2	Customer Average Interruption Duration Index (CAIDI)	Minutes/ customers/ year	57.40	50.13	49.61	≤60	≤60	For TNB operations in Peninsular Malaysia.
<b>Average power outage duration (SE)</b>								
IF-EU-550a.2 G4 - EU29	System Average Interruption Duration Index (SAIDI)	Minutes/ customers/ year	266.37	203.65	187.13	≤220	≤220	
IF-EU-550a.2 G4 - EU28	System Average Interruption Frequency Index (SAIFI)	Minutes/ customers/ year	12.61	10.79	9.88	-	-	
IF-EU-550a.2	Customer Average Interruption Duration Index (CAIDI)	Minutes/ customers/ year	21.12	18.87	18.94	-	-	
<b>Incidents of non-compliance with electricity infrastructure regulations and standards</b>								
IF-EU-550a.1	Number of incidents of non-compliance with physical standards and regulations	Number	-	0	0	-	-	
	Number of incidents of non-compliance with cybersecurity standards and regulations	Number	-	0	0	-	-	
	Total number of incidents of non-compliance with physical or cybersecurity standards or regulations	Number	-	0	0	-	-	
<b>Operation impacted by disruption (TNB)</b>								
IF-EU-550a.2	Total generation and transmission capacity impacted by disruption	MW	-	-	892	-	-	For TNB operations in Peninsular Malaysia.
	Total population affected by disruption	Number	-	-	367,462	-	-	For TNB operations in Peninsular Malaysia.
<b>Operation impacted by disruption (SE)</b>								
IF-EU-550a.2	Total generation and transmission capacity impacted by disruption	MW	-	-	657	-	-	
	Total population affected by disruption	Number	-	-	215,180	-	-	

## ENERGY TRANSITION AND GRID RESILIENCY

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>TRANSMISSION AND DISTRIBUTION LINES</b>								
<b>Length of above and underground transmission and distribution lines by regulatory regime (TNB)</b>								
IF-EU-000.C	Transmission	Circuit-km	26,093	26,371	26,592	-	-	For TNB operations in Peninsular Malaysia
G4 - EU4	Distribution	Circuit-km	761,546	708,763	715,976	-	-	For TNB operations in Peninsular Malaysia
IF-EU-000.E	Total wholesale electricity purchased	GWh	-	-	133,350	-	-	For TNB operations in Peninsular Malaysia
G4 - EU4								
<b>Length of above and underground transmission and distribution lines by regulatory regime (SE)</b>								
IF-EU-000.C	Transmission	Circuit-km	3,161	3,147	3,150	-	-	
G4 - EU4	Distribution	Circuit-km	27,668	29,265 <sup>1</sup>	27,252	-	-	
IF-EU-000.E	Total wholesale electricity purchased	GWh	-	-	6,518	-	-	
G4 - EU4								
<b>ENERGY TRANSITION AND INNOVATION</b>								
<b>Installations of RE and infrastructure associated with smart grid technology</b>								
G4 - EU29	RE Capacity	MW	3,989	4,152	4,303	-	10 GW by 2030	
	Number of smart meters (AMI) installed	Number	873,740	949,226	1,064,537	1,000,000 for FY 2025	-	
	Cumulative number of smart meters (AMI) installed	Number	3,549,489	4,498,715	5,563,252	-	10.4 million by end of 2030	
	Number of EV charging point	Number	14 DC 3 AC	48 DC 18 AC	206 DC 50 AC	250 by 2025 (cumulative)	-	
<b>SYSTEM EFFICIENCY</b>								
<b>Generation plant performance by regulatory regime</b>								
G4-EU11	Equivalent Availability Factor (EAF)	%	83.30	81.17	87.70	-	-	For TNB operations in Peninsular Malaysia
		%	78.74	75.19	73.22	-	-	For SESB operation in Sabah
		%	91.88 <sup>2</sup>	82.71 <sup>3</sup>	93.91	-	-	For TNB operations in international footprint
		%	87.30 <sup>2</sup>	65.32 <sup>3</sup>	92.35	-	-	For TNB operations in international footprint for gas
		%	95.30 <sup>2</sup>	94.79 <sup>3</sup>	96.51	-	-	For TNB operations in international footprint for hydro
		%	97.91 <sup>2</sup>	97.82 <sup>3</sup>	95.76	-	-	For TNB operations in international footprint for solar
		%	94.36 <sup>2</sup>	91.14 <sup>3</sup>	92.60	-	-	For TNB operations in international footprint for wind
	Equivalent Unplanned Outage Factor (EUOF)	%	6.58	5.40	3.71	-	-	For TNB operations in Peninsular Malaysia
		%	20.05	21.19	24.29	-	-	For SESB operation in Sabah
		%	8.12 <sup>2</sup>	17.29 <sup>3</sup>	6.09	-	-	For TNB operations in international footprint
		%	12.70 <sup>2</sup>	34.68 <sup>3</sup>	7.65	-	-	For TNB operations in international footprint for gas
		%	4.70 <sup>2</sup>	5.21 <sup>3</sup>	3.49	-	-	For TNB operations in international footprint for hydro
		%	2.09 <sup>2</sup>	2.18 <sup>3</sup>	4.24	-	-	For TNB operations in international footprint for solar
		%	5.64 <sup>2</sup>	8.86 <sup>3</sup>	7.40	-	-	For TNB operations in international footprint for wind

## ENERGY TRANSITION AND GRID RESILIENCY

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Transmission and distribution network losses</b>								
G4-EU12	Transmission	%	1.56	1.32	0.91	-	-	For wholly-owned transmission network in Peninsular Malaysia
	Distribution	%	5.42	5.84	5.69	-	-	For wholly-owned distribution network in Peninsular Malaysia
<b>Electricity Transmission System</b>								
G4-EU12	Transmission System	Minutes	0.4830	0.0019	0.1537	-	-	For TNB operations in Peninsular Malaysia
	Minutes	Minutes	16.83	0.548	9.93	-	-	For SESB operations in Sabah
	Percentage of System Availability	%	99.77	99.79	99.81	-	-	For TNB operations in Peninsular Malaysia
		%	99.99	99.99	99.99	-	-	For SESB operations in Sabah

<sup>1</sup> Data for FY2024 Sabah Electricity (SE) length of distribution line has been restated to align with the declaration submitted to ECoS.

<sup>2</sup> Data restated due to itemisation based on international footprint category.

<sup>3</sup> Data restated due to percentage calculation.

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

IFRS  
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2

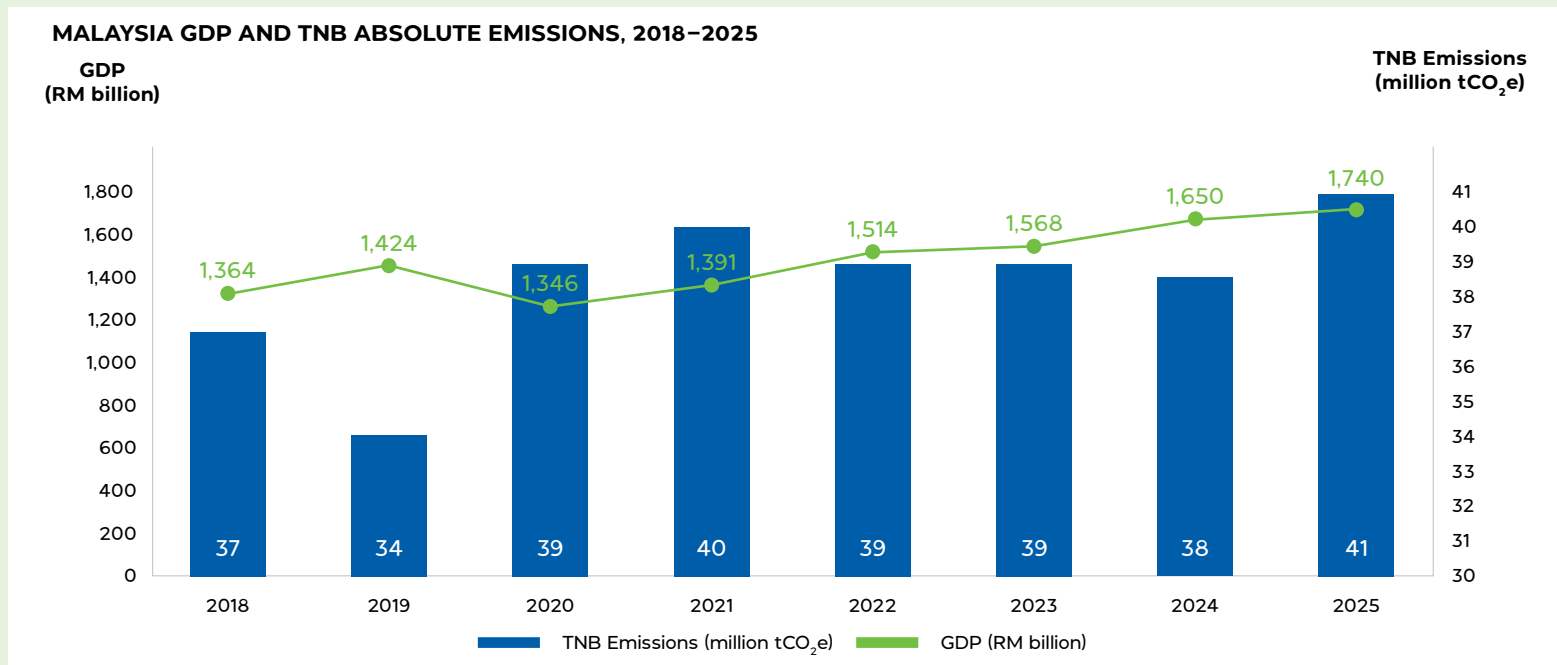
## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING



### WHY IS IT IMPORTANT?

Malaysia has strengthened its commitment to combating climate change through the National Climate Change Policy 2.0, which sets the direction for a low-carbon and climate-resilient economy. In alignment with the Paris Agreement, the United Nations 2030 Agenda and the nation's Nationally Determined Contribution (NDC) 3.0, Malaysia aims to achieve an absolute GHG emissions reduction of 15 to 30 million tonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e) by 2035 from its peak emissions level.

As the nation's economy progresses, electricity demand has shown consistent growth. Historical trends reveal that the national power sector's emissions have risen in tandem with GDP and electricity demand. From 2018 to 2025, Malaysia's GDP grew at a Compound Annual Growth Rate (CAGR) of 3.52%, surpassing our absolute emissions CAGR of approximately 1.47%. This indicates that emissions growth has remained lower than GDP growth over the period, reflecting ongoing efforts to improve emissions intensity while supporting national economic growth.



As Malaysia's national electricity provider, we recognise our responsibility to enable and support the country's energy transition, while remaining committed to delivering secure, affordable and reliable electricity. In Peninsular Malaysia, we account for approximately 48.8% of total generation capacity. We support Malaysia's effort to balance the energy trilemma of energy security, affordability and sustainability through our Energy Transition Plan. This plan spans the entire energy value chain, encompassing the transition to clean energy sources, the development of an energy transition network and the delivery of innovative customer solutions that promote efficient energy usage.

### Navigating a Complex Energy Market and Operating Environment

As the energy transition continues to evolve, external factors such as geopolitical uncertainties and global energy market disruptions present increasingly complex challenges in balancing decarbonisation with the need for reliable and affordable electricity. Fuel supply constraints and price volatility arising from geopolitical tensions in the Middle East have reinforced the importance of maintaining a resilient and secure energy system. As the national utility, we continue to work closely with the Government, regulators, policymakers and industry partners to optimise the energy mix through strategic energy resource planning, ensuring energy security and the transition remain inclusive, equitable and resilient, while managing cost and reliability amid evolving challenges. During periods of energy market disruption, conventional energy resources continue to play a role in maintaining stable electricity access, while longer-term resource planning focuses on accelerating renewable energy and cleaner alternatives. At the same time, this evolving landscape provides an opportunity to reassess long-term resource planning, including accelerating renewable energy and exploring cleaner alternatives such as nuclear energy to support a resilient and low-carbon power system.

Against this backdrop, TNB continues to advance its decarbonisation agenda through diversifying the energy mix and deploying low-carbon technologies within a challenging operating environment. Electricity demand in Peninsular Malaysia is projected to grow by more than 5% annually towards 2030, driven by economic expansion and increasing demand from data centres. As Peninsular Malaysia's grid operates on a least-cost dispatch principle, increased demand coupled with rising gas prices has led to greater dispatch of more economical coal-based generation to maintain supply security while minimising the impact on electricity tariffs. This has contributed to emissions exceeding earlier projections and necessitated a reassessment of decarbonisation pathways and transition strategies. Nevertheless, TNB remains committed to its Net Zero aspiration while balancing energy security, affordability and sustainability, supported by strategic energy resource planning and close collaboration with regulators, policymakers and industry partners to ensure the transition remains inclusive, equitable and resilient amid evolving geopolitical and market conditions.

[For more information about the TNB Energy Transition Plan, refer to the Energy Transition and Grid Resiliency chapter.](#)

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

### OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31.32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Driving Decarbonisation Through Lower-Carbon Technologies				Risk: Technology Constraints Increase Decarbonisation Costs and Delay Transition Efforts			
<b>Description</b>	<p>TNB can drive decarbonisation by transforming its generation portfolio through the deployment of low-carbon and circular-carbon technologies, while strengthening long-term financial competitiveness. Biomass utilisation, renewable integration, electrification, digital optimisation and asset rationalisation progressively reduce reliance on high-emissions thermal assets.</p> <p>As TNB transitions from coal and gas towards a lower-carbon generation mix, its overall operational risk profile improves. Lower exposure to combustion risk, fuel handling and emissions-related liabilities enhances asset resilience and reduces insured risk exposure at the portfolio level.</p> <p>Insurance premium intensity is assessed on a per-MW basis by technology. While premium rates per MW are assumed to remain constant based on historical averages, the portfolio-weighted average premium intensity declines as higher-risk coal capacity is retired and replaced by lower-risk renewable capacity under RT 2.0 and the Carbon Management Strategy. This mix-driven reweighting generates recurring operational cost savings over time, supporting long-term shareholder value.</p>				<p>TNB is pursuing an ambitious decarbonisation pathway with a target to achieve net zero emissions by 2050. Achieving long-term decarbonisation requires the adoption of advanced low-carbon technologies such as hydrogen or biomass co-firing, carbon capture, utilisation and storage (CCUS) and next-generation grid solutions.</p> <p>However, many of these technologies remain technically nascent, costly, or unproven at a commercial scale in Malaysia. Integrating new technologies into existing plant designs presents engineering, compatibility and operational challenges that may require significant upgrades or redesigns. High capital costs, uncertain performance outcomes and limited supply chains for green fuels such as hydrogen and biomass further elevate financial and implementation risks.</p> <p>These constraints may increase the overall cost of decarbonisation and delay the rollout of energy transition initiatives, slowing progress towards long-term GHG emissions reduction targets.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Reduces portfolio-level operational risk exposure through natural retirement of thermal assets.</li> <li>Lowers portfolio-weighted insurance premium through generation mix transition.</li> </ul>				<ul style="list-style-type: none"> <li>Impedes energy transition progress and GHG emissions reduction targets to achieve Net Zero by 2050.</li> <li>Impedes the transition of brown energy (fossil fuels) to clean energy.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Prioritises generation mix transition that improves structural risk profile and long-term cost efficiency.</li> <li>Incorporates portfolio-weighted insurance cost implications into capacity planning and asset retirement sequencing.</li> </ul>				<ul style="list-style-type: none"> <li>Advance pilot projects for emerging technologies and build strategic Research and Development (R&amp;D) collaborations to evaluate technical feasibility and maturity.</li> <li>Implement phased adoption strategies to manage cost uncertainties and reduce technology-integration risks.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Net savings from insurance premiums arise from the natural retirement of thermal assets and the expansion of lower-risk renewable capacity.</li> </ul>				<ul style="list-style-type: none"> <li>Higher operational costs arising from additional emissions charges as a result of delayed energy transition projects.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	–	–	Cost Avoidance RM50 mil – RM450 mil	Cost Avoidance RM50 mil – RM450 mil	–	Cost Increase <RM50 mil	Cost Increase RM50 mil – RM450 mil	Cost Increase RM50 mil – RM450 mil

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Providing Diversified Energy Mix for Energy Security				Risk: Limited Fuel Resources Restricting Coal-to-Gas Transition and Decarbonisation Progress			
<b>Description</b>	<p>TNB has the opportunity to strengthen Malaysia's energy security and power system resilience through a diversified energy mix that balances reliability, affordability and sustainability. As Malaysia experiences accelerated electricity demand growth driven by data centres and industrial expansion, maintaining a stable and secure power supply through a balanced generation portfolio becomes increasingly critical while we transition towards a lower-carbon energy system.</p> <p>Gas-fired generation, whose emissions are approximately 50-60% lower than coal, continues to play an important role in providing flexible and dispatchable capacity to complement higher shares of variable renewable energy (VRE) and manage intermittency risks. At the same time, renewable energy expansion, energy storage technologies and emerging low-carbon solutions such as hydrogen and nuclear energy are expected to further strengthen the resilience and sustainability of the national grid over the longer term. Through strategic investments in flexible generation assets and grid modernisation, TNB can continue to ensure reliable baseload and mid-merit supply while progressively reducing emissions intensity.</p> <p>In parallel, TNB's participation in the Lumut Regasification Terminal (RGT) and its aspiration to become a gas aggregator under the Third-Party Access (TPA) framework would strengthen TNB's capability to manage gas sourcing, optimise procurement strategies and hedge against fuel price volatility.</p>				<p>As announced by the government, natural gas will continue to play a critical role as a transitional fuel, supporting system reliability and energy security while enabling the gradual displacement of coal in the nation's energy transition journey.</p> <p>However, Peninsular Malaysia continues to experience evolving challenges in domestic gas supply arising from increasing demand from the power and industrial sectors, driven by economic growth and ongoing electrification. Global geopolitical developments, including tensions in the Middle East, have also contributed to tighter global gas market conditions and greater fuel price volatility.</p> <p>In response, TNB continues to work closely with the Government, regulators and industry stakeholders to strengthen fuel supply resilience, optimise generation planning and support the accelerated deployment of renewable energy and low-carbon technologies. While gas remains an important transition fuel for the power sector, evolving market conditions may influence fuel procurement costs and generation economics, requiring continued optimisation of operational efficiency and resource planning.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Enhances system flexibility and strengthens TNB's ability to balance VRE through reliable gas-fired generation.</li> <li>Reinforces energy supply security and operational resilience by maintaining dependable dispatchable capacity during the transition period.</li> </ul>				<ul style="list-style-type: none"> <li>Impedes energy transition progress and GHG emissions reduction targets to achieve Net Zero by 2050.</li> <li>Impedes the transition of brown energy (fossil fuel) to clean energy.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Guides strategic investments in regasification capacity, liquefied natural gas (LNG) import infrastructure and hydrogen-ready gas plants to ensure fuel availability and operational efficiency.</li> <li>Supports long-term transition planning by optimising gas dispatch, extending asset life and preparing for future low-carbon co-firing pathways.</li> </ul>				<ul style="list-style-type: none"> <li>Invests in regasification facilities, LNG import infrastructure and optimise gas plant dispatch during periods of high availability.</li> <li>Strengthens efficiency initiatives for thermal plants and explores hydrogen co-firing to enhance fuel flexibility and reduce reliance on natural gas.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Stabilises earnings by reducing reliance on volatile global coal markets and enabling more efficient system operations.</li> <li>Requires ongoing fuel and infrastructure expenditure, with near-term cash flow impacts offset by long-term value protection from secure, flexible capacity and reduced system imbalance costs.</li> </ul>				<ul style="list-style-type: none"> <li>Incurs higher operating costs resulting from reduced power plant efficiency due to non-optimal operations during periods of limited gas supply.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Revenue RM6.3 bil	Revenue RM5 bil – RM10 bil	Revenue >RM10 bil	Revenue >RM10 bil	–	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

### GOVERNANCE IN ACTION

The Board Sustainability and Risk Committee (BSRC) oversees the integration of GHG emissions management and targets into strategic decision-making to ensure that decarbonisation efforts are embedded across all business operations.

The Board and the Finance & Investment Committee (FIC) oversee major investment and strategic initiatives related to decarbonisation through a structured investment process to ensure governance consistency and accountability.

At the management level, the Sustainability & Energy Transition Committee (SETC), chaired by the President/Chief Executive Officer and comprising members of TNB's top management, plays a pivotal role in steering key decarbonisation initiatives, setting GHG emissions reduction targets, monitoring GHG emissions performance, endorsing implementation plans and ensuring alignment with TNB's energy transition roadmap.

The Investment Executive Committee (IEC) evaluates renewable energy and decarbonisation project proposals to ensure the proposals are aligned with TNB's strategic priorities, financial requirements and energy transition objectives. Once the proposals are evaluated, the IEC or the relevant higher-level committees will grant approval in accordance with TNB's Limits of Authority (LOA).

Furthermore, the Project Direct Emissions Intensity criterion within the Investment Risk Methodology (IRM) is applied to assess all renewable and decarbonisation investments. Projects exceeding the threshold undergo additional review by the Board Sustainability and Risk Committee (BSRC) to ensure they are aligned with long-term decarbonisation goals.

### STRATEGY

#### TNB CARBON MANAGEMENT STRATEGY AND RENEWABLE ENERGY EXPANSION PLAN

TNB's Carbon Management Strategy and Renewable Energy Expansion Plan guide the Group's journey towards Net Zero emissions by 2050. The strategy is anchored on three pillars: Reduce, Capture and Offset and targets a 5% annual reduction in GHG emissions intensity from 2024, supporting a 35% emissions intensity reduction by 2035 and Net Zero by 2050.

Emissions Intensity Target

5%  
annual reduction from 2024

35%  
reduction by 2035

Net Zero  
by 2050

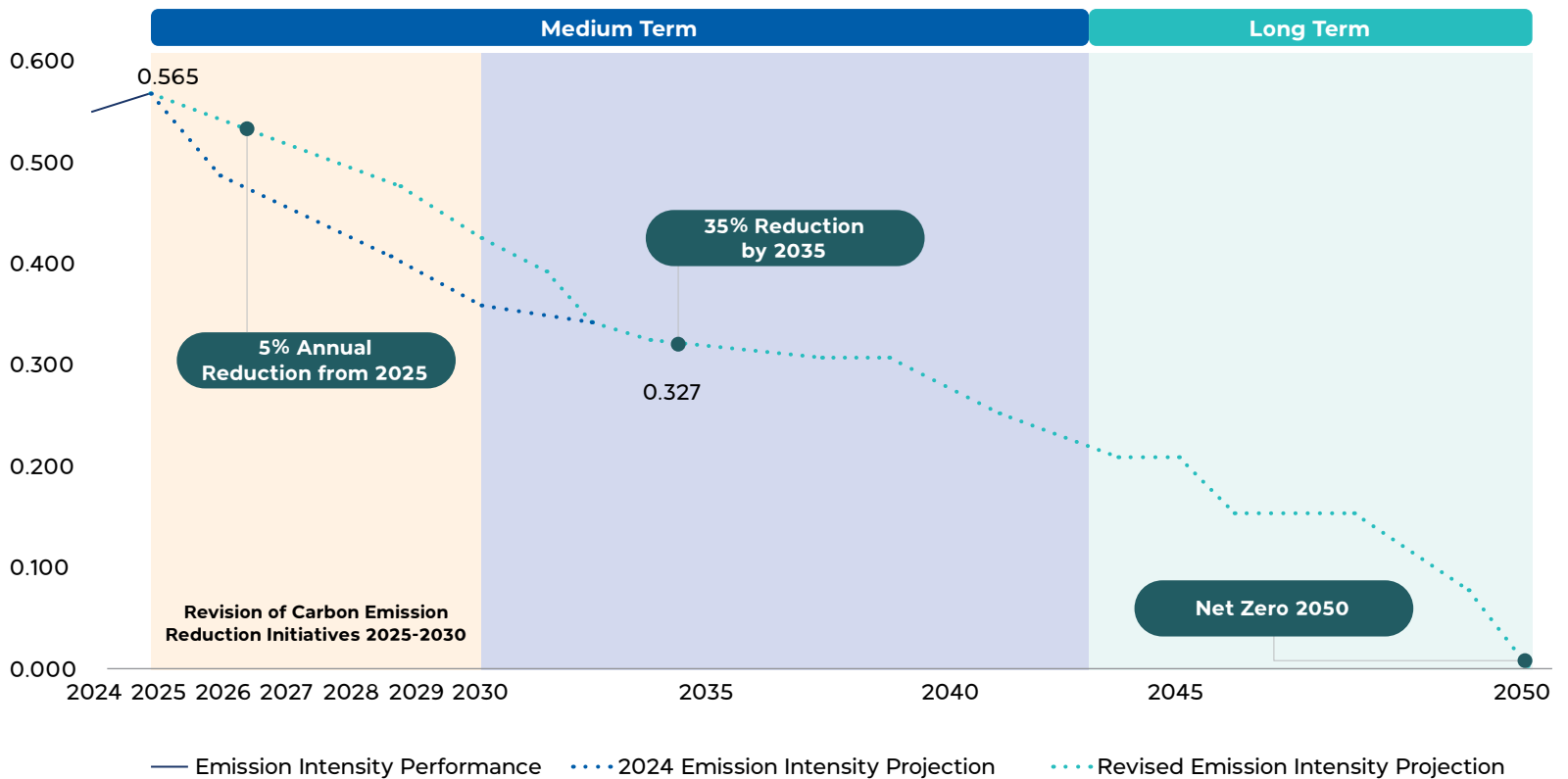
CARBON MANAGEMENT STRATEGY	RENEWABLE ENERGY CAPACITY EXPANSION				
<p>Three (3) carbon management strategies:</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="background-color: #1a4d4d; color: white; padding: 5px; width: 20%; text-align: center;">Reduce Carbon Emissions</div> <div style="width: 80%;">Lowering carbon emissions across the company (Scopes 1, 2 and 3)</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="background-color: #1a4d4d; color: white; padding: 5px; width: 20%; text-align: center;">Capture Carbon Emissions</div> <div style="width: 80%;">Capturing and storing of carbon dioxide (CO<sub>2</sub>) before it is released into the atmosphere</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="background-color: #1a4d4d; color: white; padding: 5px; width: 20%; text-align: center;">Offset Carbon Emissions</div> <div style="width: 80%;">Offset carbon emissions with the goal of reducing overall emissions over time</div> </div>	<p>Capture RE growth potential in domestic and international markets:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #1a4d4d; color: white;"> <th style="width: 50%; padding: 5px;">Local</th> <th style="width: 50%; padding: 5px;">International</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">                     Capture the Malaysia market through TRe &amp; TNB Genco:                     <ul style="list-style-type: none"> <li>• Large Scale Solar (LSS)</li> <li>• Corporate Green Power Programme (CGPP)</li> <li>• NETR (Solar Park &amp; HHFS)</li> <li>• Third-Party Access (TPA)</li> </ul> </td> <td style="padding: 5px;"> <ul style="list-style-type: none"> <li>• Capture United Kingdom and European markets through Vantage RE</li> <li>• Capture the Australian market through Spark Renewables</li> </ul> </td> </tr> </tbody> </table>	Local	International	Capture the Malaysia market through TRe & TNB Genco: <ul style="list-style-type: none"> <li>• Large Scale Solar (LSS)</li> <li>• Corporate Green Power Programme (CGPP)</li> <li>• NETR (Solar Park &amp; HHFS)</li> <li>• Third-Party Access (TPA)</li> </ul>	<ul style="list-style-type: none"> <li>• Capture United Kingdom and European markets through Vantage RE</li> <li>• Capture the Australian market through Spark Renewables</li> </ul>
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<p>Measures: Carbon emissions (tCO<sub>2</sub>e) Carbon emissions intensity (tCO<sub>2</sub>e/MWh)</p>	<p>Embark on strategic partnership for new technology, e.g. grid-scale BESS.</p> <p>Measures: RE capacity (MW) Net generation from RE (MWh)</p>				

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

In view of prevailing geopolitical uncertainties and rising electricity demand, a strategic review of emissions reduction initiatives for the 2026–2030 period has been undertaken. Scenario analysis has been conducted to assess projected electricity demand growth, opportunities for renewable energy capacity expansion, new generation plant development and the potential extension of thermal plant operations, taking into consideration both internal and external factors influencing the emission projections. The review also evaluated the viability and effectiveness of existing emissions intensity reduction initiatives amid evolving market and operational conditions.

While TNB maintains its overall strategy and targets, certain decarbonisation initiatives have been recalibrated, with a stronger focus on accelerating renewable energy capacity expansion towards 2030, capitalising on accelerated renewable energy deployment in Malaysia. Despite the short-term constraints, we remain committed to the annual 5% emissions intensity reduction delivered by the identified decarbonisation initiatives, while recognising the impact from external factors beyond our operational control.

### EMISSION INTENSITY PROJECTION



### CARBON MANAGEMENT STRATEGY: REDUCE

We recognise our reliance on fossil fuel generation. To address this, we focus on reducing Scope 1 emissions. Our initiatives are largely focused on enhancing our plant efficiency, transitioning energy sources to phase out coal plants and decarbonising existing thermal power plants. This pillar is expected to contribute 19% of emissions intensity reduction by 2050.

### ENHANCING POWER PLANT EFFICIENCY

We are committed to reducing carbon intensity through continuous improvement in operational efficiency, particularly across our thermal power plants. Carbon emissions are reduced by optimising fuel consumption to generate the same amount of electricity more efficiently. To achieve this, we monitor the heat rate of our thermal plants and implement various efficiency enhancement initiatives, such as coal blending, periodic boiler cleaning, condenser cleaning and compressor washing across our operations.

In 2025, we focused on heat rate improvement initiatives across our coal-fired plants to enhance fuel efficiency and lower carbon emissions. These include operational enhancements, equipment upgrades and the adoption of digital performance monitoring tools. We also leverage digital twin technology to identify performance gaps on a real-time basis and enable data-driven performance improvement initiatives within our operations.

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

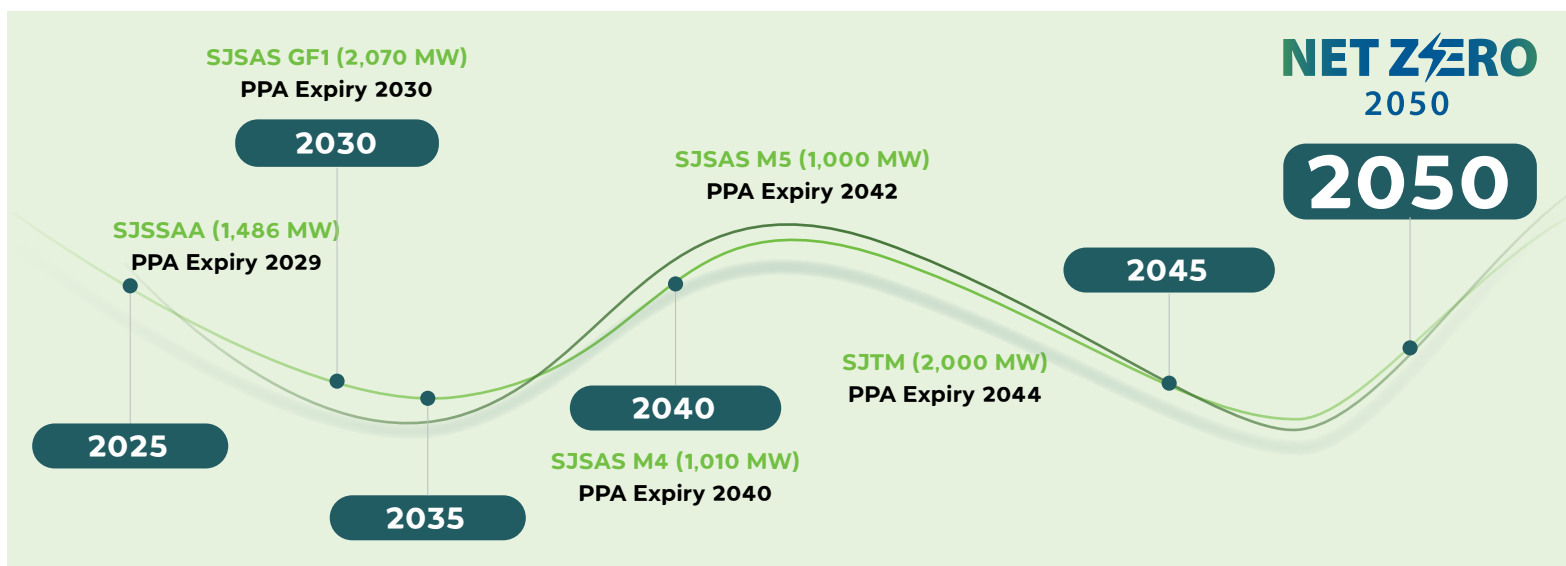
The following outlines the key initiatives implemented in 2025 and the subsequent improvements achieved in emissions intensity:

Power Plant	Improvement	Improvement in Emissions Intensity
SJSAS U1	<ul style="list-style-type: none"> <li>Improve make-up water consumption via valves replacements</li> </ul>	6%
SJSAS U4	<ul style="list-style-type: none"> <li>Repair the passing High Pressure (HP) Heater and Pressure Relief (PR) valve</li> <li>Optimise the Flue Gas Desulphurisation (FGD) system</li> <li>Prioritise higher Calorific Value (CV) coal for new contracts</li> </ul>	1%
SJSAS U5	<ul style="list-style-type: none"> <li>Improve condenser backpressure by repairing air-ingress leakage and cleaning the condenser tube</li> <li>Improve make-up water by repairing the passing isolation valve and upgrading to zero-leakage valve type</li> </ul>	2%
SJTM 1	<ul style="list-style-type: none"> <li>U1 Major Outage (HP Heater replacement)</li> </ul>	7%
SJTM 2	<ul style="list-style-type: none"> <li>Boiler cleaning work</li> </ul>	3%

In 2025, as part of ongoing efforts to enhance plant efficiency and reduce emissions, we have commenced evaluation of fuel additives in coal-fired power plants to further improve operational and environmental performance. Fuel additives were introduced at *Stesen Janakuasa Sultan Salahuddin Abdul Aziz (SJSSAA) GF2* (bituminous coal-fired units), delivering positive results in improving plant efficiency. Building on this progress, a trial for fuel additives in sub-bituminous coal-fired power plants commenced in April 2026, with outcomes to be assessed for potential broader implementation.

### COMMITMENT TO CEASE INVESTMENTS IN COAL-FIRED POWER PLANTS

Since 2021, we have not invested in new greenfield coal-fired power plants. The Power Purchase Agreement (PPA) for our last coal-fired power plant is expected to expire in 2044.



### GAS AS TRANSITION FUEL

Malaysia’s electricity demand is expected to grow by over 20% in the next decade, driven by economic expansion, industrial growth and rapid data centre development. In 2025, Peninsular Malaysia recorded a peak demand of 21,049 MW, supported by industrial growth, including data centre-related demand.

Amid this growth, the global energy landscape remains increasingly complex. Geopolitical tensions, including conflicts affecting key energy supply routes, have introduced volatility in global fuel markets and heightened risks to gas supply availability and pricing. In this context, we continue to adopt a prudent and proactive approach to fuel planning and portfolio diversification to safeguard energy security and system reliability.

To meet rising demand while supporting decarbonisation, natural gas remains a pivotal transition fuel in Malaysia’s low-carbon pathway. Coal-fired power plants emit approximately 1.8 times more CO<sub>2</sub>e per MWh than gas-fired plants, positioning gas as a lower-carbon transition option relative to coal, while supporting system reliability and affordability during the transition.

GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

We are investing in new gas-fired generation capacity, including a combined-cycle gas-fired power plant in Paka, Terengganu, targeted for operation in December 2029, and a 2,100 MW combined-cycle gas turbine (CCGT) facility in Kapar, expected to be completed by 2031. In addition, TNB has received an Initial Letter of Notification (iLON) for a 700 MW CCGT project in Pasir Gudang, targeted for completion by 2029. These projects will incorporate hydrogen-ready technologies, supporting future integration of low-carbon fuels without compromising system reliability.

Complementing our generation strategy, we are also strengthening our position across the gas value chain. Through TNB Fuel Services Sdn. Bhd. (TNBF), we are expanding into Liquefied Natural Gas (LNG) aggregation and supply. This strategic move enhances supply flexibility, mitigates exposure to global market volatility and supports a more resilient and competitive gas supply framework for the power sector. It also positions us to capture emerging opportunities in the regional gas market while reinforcing our commitment to energy security and a managed energy transition.

**ACCELERATING THE ENERGY TRANSITION AND MALAYSIA’S HYDROGEN ECONOMY**

We are exploring hydrogen as a key lever to support Malaysia’s decarbonisation efforts, progressing from pilot initiatives to commercial-scale projects aimed at establishing a reliable hydrogen supply chain.

Project REACH (Renewable Energy-Assisted Clean Hydrogen) is an innovative initiative to demonstrate the integration of renewable energy and hydrogen production within an operational thermal power station, laying the foundation for future decarbonisation efforts.

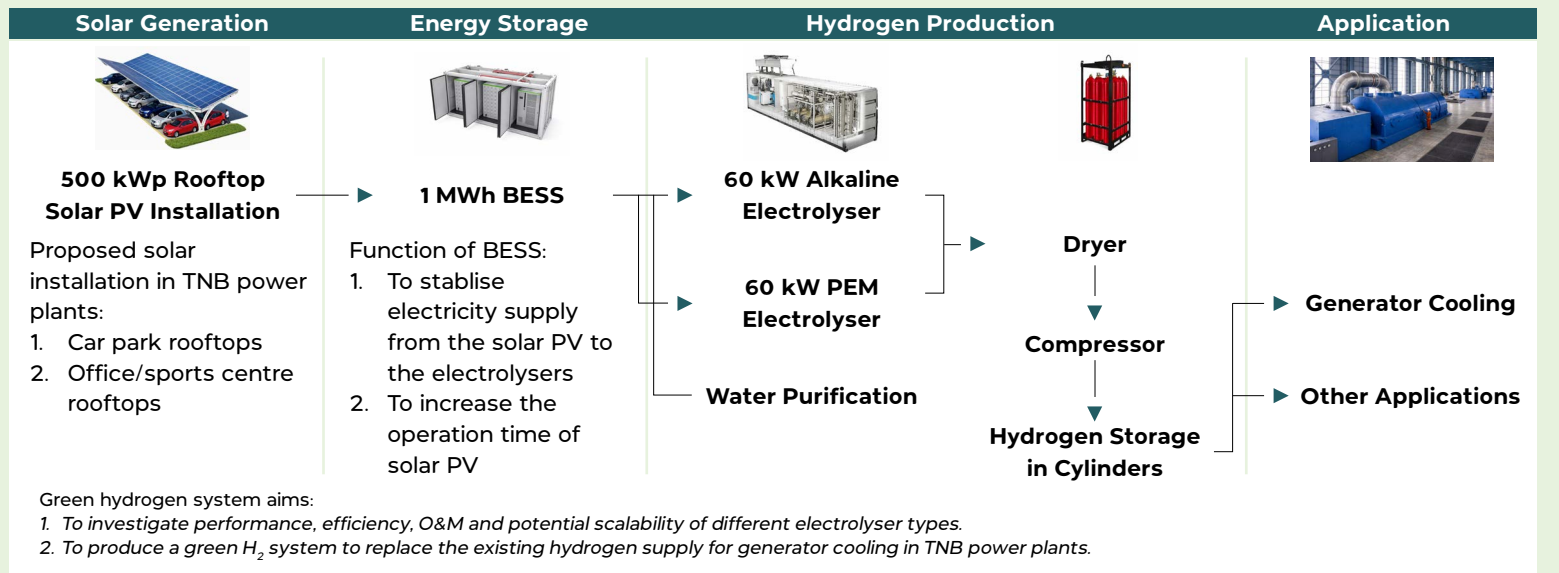
We are also exploring low-carbon fuel co-firing, such as hydrogen, ammonia and biomass, which are key to TNB’s Carbon Management Strategy to annually reduce our emissions intensity towards Net Zero by 2050, after successfully co-firing up to 60% of ammonia at lab-scale in 2022 and 1% biomass at an operational power plant in 2023.

In partnership with PETRONAS, we entered into a Strategic Collaboration Agreement with Petronas to develop a commercial-scale, end-to-end green hydrogen value chain spanning from the Kenyir Hybrid-Hydro Floating Solar (HHFS) project to green hydrogen and derivatives production in Kertih.

The collaboration seeks to bridge the gap between the cost of green hydrogen production and the market’s willingness to pay. This will be achieved by developing a viable business model through techno-economic optimisation and molecule offtaker sourcing for both domestic and export use, as well as targeted and supportive government policies.

**PROJECT REACH - A Pioneering Venture in Green Hydrogen Production**

As a step towards establishing a hydrogen supply chain, we have initiated Project REACH, a pioneering venture in green hydrogen production at *Stesen Janakuasa Tuanku Muhriz (SJTM)*. This initiative integrates a 500 kWp rooftop solar photovoltaic (PV) system and battery energy storage systems (BESS) to power electrolyser units, enabling zero-emission hydrogen production. The green hydrogen will be utilised for key applications such as generator cooling at TNB’s thermal power plants, with potential for expansion into other decarbonisation initiatives. Beyond its technical scope, Project REACH delivers strategic impact by validating the commercial and operational feasibility of hydrogen technology, strengthening Malaysia’s clean energy ecosystem, and positioning TNB as a regional leader in the hydrogen economy while enhancing national energy security and resilience.



## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

### CARBON MANAGEMENT STRATEGY: CAPTURE

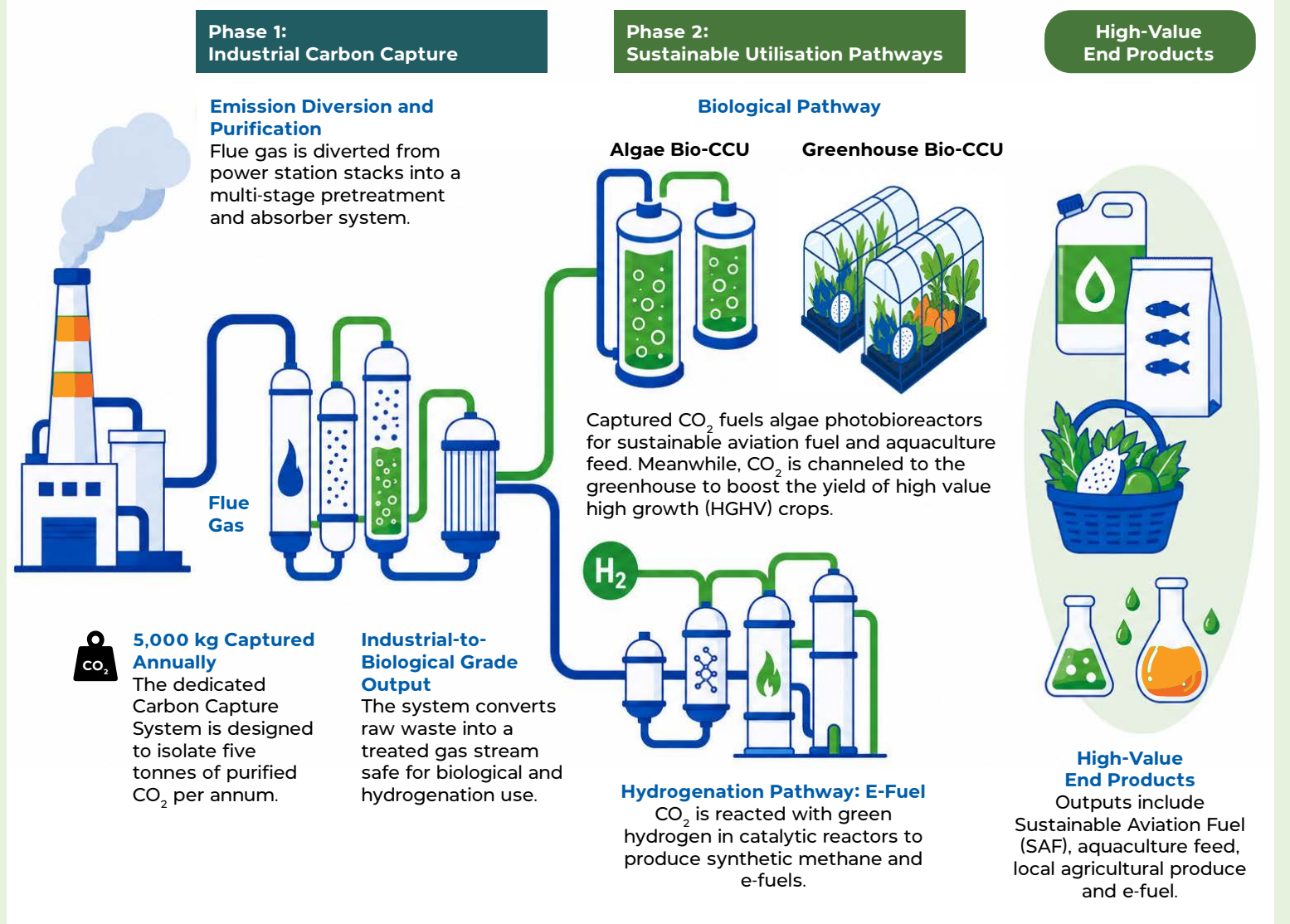
We have earmarked the use of advanced Carbon Capture and Utilisation (CCU) technologies to deliver 30% of our emissions intensity reduction by 2050. Our efforts focus on two (2) key pathways: carbon capture and carbon utilisation. Carbon capture involves developing advanced amine-based carbon capture systems to efficiently absorb CO<sub>2</sub>. Carbon utilisation explores both biological and hydrogenation pathways to convert captured CO<sub>2</sub> into valuable products. Since 2011, TNB Research (TNBR) has led innovation in this space, driving multiple CCU projects, including Project Dragon and Project Chlorobloom. Both projects are expected to commence carbon capture in July 2026.

#### PROJECT DRAGON - A Pilot Project for Integrating CCUS With Thermal Power Plant

We have initiated a pilot-scale CCU project at SJTM, capturing up to 5,000 kg of CO<sub>2</sub> per year directly from the plant's flue gas. This pilot serves as a proof of concept, demonstrating the technical feasibility of CCU under real operating conditions while establishing the Unit Production Cost (UPC) for CCU technology in the energy industry.

The captured CO<sub>2</sub> will be repurposed for multiple applications, including e-fuel (methane/methanol) production, microalgae cultivation and supporting the High Growth High Value (HGHV) agriculture sector. In agriculture, it is used to enhance the cultivation of dragon fruit, the inspiration behind the project's name. Beyond emissions reduction, this initiative reinforces the company's innovation-driven sustainability strategy, positioning it at the forefront of low-carbon technology adoption while enhancing its appeal to regulators, investors and green industry stakeholders.

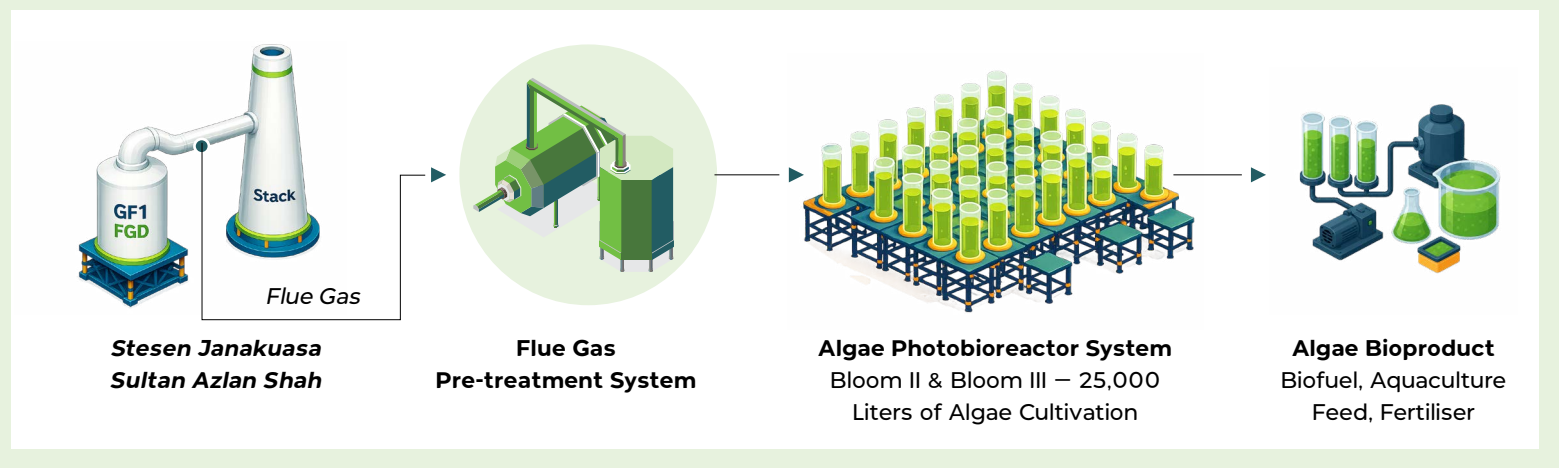
#### PROJECT DRAGON - OVERALL OVERVIEW



## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

**PROJECT CHLOROBLOOM – Implementation of CCUS Through Algae-Bio Carbon Capture and Utilisation at Thermal Power Plant**

TNBR has been actively exploring Algae-Bio Carbon Capture and Utilisation (Bio-CCU) as part of our broader decarbonisation strategy. A pilot plant implemented between 2015 and 2018 at the *Stesen Janakuasa Sultan Azlan Shah* (SJSAS) demonstrated that microalgae are highly effective in capturing CO<sub>2</sub> due to their rapid growth and strong fixation capabilities. The next phase introduces Project Chlorobloom, launched during the year as an expansion of the CCU initiative through a microalgae-based CO<sub>2</sub> capture approach, where flue gas from our power plant will be used directly for algae cultivation. The harvested biomass will be commercialised for applications in aquaculture, animal feed and biofertiliser industries, creating new revenue opportunities and promoting a circular economy. Implemented in three (3) phases (BLOOM I, II and III), the project aims to empower local communities and establish a self-sustaining CCU ecosystem, while demonstrating the economic viability of biological carbon utilisation. Complementing this effort, the reinstalled Bio-CCU pilot at SJSAS will deploy a 22,000 L photobioreactor (Bloom III) and 3,000 L unit (Bloom II) capable of mitigating up to 5.94 tCO<sub>2</sub>e annually, while evaluating downstream product development from algae biomass.

**CARBON MANAGEMENT STRATEGY: OFFSET**

We also invest in nature-based carbon offset initiatives like reforestation to tackle hard-to-abate emissions. These efforts help absorb and store carbon dioxide, contributing to a more sustainable future. In 2025, we planted a total of 23,230 trees at designated areas across the country, intended to sequester an approximately 365 tCO<sub>2</sub>e.

We will continue to explore and invest in both nature-based and technology-based carbon offset initiatives for the remaining hard-to-abate emissions (5.65% of emissions intensity by 2050). Our commitment to these efforts is crucial in addressing our carbon footprint and ensuring a sustainable future for generations to come.

**ENHANCING SCOPE 1 REDUCTION EFFORTS****GHG Reduction Initiatives and Performance by Grid Operation**

We use Sulphur Hexafluoride (SF<sub>6</sub>) as an insulating medium in high-voltage switchgear and gas-insulated substations within our transmission and distribution infrastructure. However, SF<sub>6</sub> is a greenhouse gas with a global warming potential (GWP) approximately 23,500 times higher than CO<sub>2</sub>. To this end, we have implemented measures to reduce our fugitive emissions, with a focus on recycling and reconditioning of the SF<sub>6</sub> gas.

In 2025, we successfully recycled 8,211kg of SF<sub>6</sub> gas, contributing to 192,956 tCO<sub>2</sub>e in carbon avoidance through the initiatives below:

- Completed GIS refurbishment for two (2) substations (PMU 132 kV SRYA and PMU 132 kV SBGS)
- R22 air conditioner replacement in the Northern Region

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

### EV Fleet Conversion



Emissions from company vehicles account for less than 1% of our total GHG emissions, but they present a clear opportunity for reduction. We have identified fleet electrification as a key strategy, with each EV replacing a conventional vehicle estimated to avoid 41.6 tCO<sub>2</sub>e over 10 years. We aim to electrify 30% of our 4,780 operational vehicles by 2030, covering pickups, vans, passenger cars, motorcycles and specialised units.

As of 2025, we have already deployed 401 EVs (8.4%), including 301 technical operational vehicles and 100 corporate vehicles, marking a strong start towards our fleet electrification goals.



Fleet electrification has been identified as a key strategy to reduce TNB's Scope 1 emissions.

### RENEWABLE ENERGY EXPANSION PLAN

In advancing TNB's decarbonisation agenda, we are expanding our renewable energy portfolio across both domestic and international markets, which is expected to account for a 46% reduction in emissions intensity by 2050. Currently, we have an installed renewable energy capacity of 4.6 GW across our operations locally and internationally, contributing to an estimated emissions avoidance of 6.3 million tCO<sub>2</sub>e annually. Looking ahead, we are targeting a total operational capacity of around 10 GW by 2030, comprising 8 GW in Malaysia, 1 GW in the United Kingdom and Europe and 1 GW in Australia.

Our domestic RE growth is supported by Malaysia's National Energy Transition Roadmap (NETR), as TNB has been identified as the champion for the 2.5GW Hybrid Hydro Floating Solar (HHFS) and 750 MWp Centralised Solar Park (CSP), as well as a key partner for residential solar initiatives. Additionally, we are scaling our renewable energy growth through the Large-Scale Solar (LSS) programme, the Corporate Renewable Energy Supply Scheme (CRESS) and the Corporate Green Power Programme (CGPP), enabling greater adoption of renewable energy among commercial and industrial customers.

We are also actively pursuing renewable energy opportunities to diversify our generation portfolio and strengthen our clean energy presence internationally through our subsidiaries, Vantage RE in the United Kingdom and Spark Renewables in Australia. To this end, we continue to scale solar, wind and battery energy storage projects in markets with strong policy support and demand for low-carbon solutions, particularly in the United Kingdom, Europe and Australia.

### DOMESTIC RENEWABLE ENERGY EXPANSION GROWTH

We have an installed renewable generation capacity of 3 GW domestically, contributing to an estimated emissions avoidance of 6 million tCO<sub>2</sub>e annually. Building on this foundation, we aim to further expand our renewable energy capacity through the initiatives below:

#### NATIONAL ENERGY TRANSITION ROADMAP PROJECTS (NETR)

In 2023, Malaysia launched the National Energy Transition Roadmap (NETR) to accelerate the nation's transition to a low-carbon energy economy. We are leading Malaysia's energy transition by delivering nine (9) TNB NETR flagship projects, championing and supporting key initiatives as follows:

Energy Transition Levers	Nine (9) TNB NETR Flagship Projects	Champion	TNB as Partner	TNB Providing Support
Renewable Energy Zone	Centralised Solar Park	TNB		
Renewable Energy Zone	Hybrid Hydro Floating Solar PV (HHFS)	TNB		
Hydrogen	Green Hydrogen Value Chain	TNB		
Renewable Energy Zone	Residential Solar	Sime Darby Property	✓	
Green mobility	EV Charging Stations	MITI	✓	
CCUS	Carbon Capture & Storage	PETRONAS	✓	
Energy Efficiency (EE)	Energy Efficiency and Conservation Act	PETRA		✓
Renewable Energy Zone	Integrated RE Zone	UEM		✓
Renewable Energy Zone	Energy Storage System (ESS)	PETRA	✓	

GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

**HYBRID HYDRO FLOATING SOLAR (HHFS)**

We are committed to delivering 2.5 GW of renewable energy capacity by 2030 through the HHFS initiative at our existing hydro reservoirs. This is being carried out in close collaboration with state governments under the Corporate Renewable Energy Supply Scheme (CRESS). Once fully commissioned, these projects are expected to avoid approximately 3.8 million tCO<sub>2</sub>e emissions annually.

Projected Commercial Operation Date	Capacity (MW)	Estimated Annual Emission Avoidance (tCO <sub>2</sub> e)
2028	850	1,320,734
2029	1,350	2,097,637
2030	300	466,142
Total	2,500	3,884,513

The pilot projects, the 105.12 kWp floating solar PV at Manjung and the 100 kWac HHFS installation at Kenyir Lake, demonstrate technical viability and operational readiness, positioning TNB for a scaled roll-out in Terengganu. We have also formally partnered with Terengganu Incorporated Sdn Bhd (Terengganu Inc) to further reinforce delivery assurance for this project. In addition, TNB Power Generation Sdn Bhd. entered into a Bilateral Energy Supply Contract (BESC) with DayOne Data Center on 17 March 2026 for the supply of 500 MWac of renewable energy from HHFS.

**ADVANCING NETR THROUGH CORPORATE RENEWABLE ENERGY SUPPLY SCHEME (CRESS)**

We are committed to developing ground-mounted solar projects with a total capacity of 750 MWp (500 MWac), supported by a 1,000 MWh BESS, and projected to avoid approximately 0.6 million tCO<sub>2</sub>e. These projects are delivered through our subsidiary, TNB Renewables (TRe), in collaboration with local SMEs to support national industrial development and the clean energy value chain.

Considering the rising data centre demand for green energy from 2025 onwards, we have put in place a strategy to secure long-term renewable energy supply agreements under CRESS. As part of this effort, we achieved a key milestone by signing the Bilateral Energy Supply Contract (BESC) with DayOne Data Center, with 500 MWac of renewable energy demand over a 21-year term to support its data centre operations in Nusajaya Tech Park and Kempas Tech Park, Malaysia.



## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

### ENABLING ROOFTOP SOLAR THROUGH PARTNERSHIP

We have partnered with Sime Darby Property through our subsidiary GSPARX to deliver 4.5 MWp for 450 homes at City of Elmina and Bandar Bukit Raja. This ongoing project is implemented under the Community Renewable Energy Aggregation Mechanism (CREAM) initiative as part of the NETR.

We also incorporated special infrastructure into the distribution network at Elmina Ilham Residence, namely the Community Energy Storage System (CESS), Voltage Regulated Distribution Transformer (VRDT) and online feeder pillar. This is part of the preparation for the upcoming installation of solar PV systems at the homes in the City of Elmina.

As of 2025, the partnership has also invested in 14 commercial sites, delivering 1.7 MWp of installed capacity and avoiding approximately 1,500 tCO<sub>2</sub>e annually.

### LARGE-SCALE SOLAR PROJECTS

In 2024, the Ministry of Energy Transition and Water Transformation (PETRA) launched the fifth cycle of the Large-Scale Solar (LSS5) programme, offering a total of 1,975 MW of solar capacity. Through this programme, TNB Renewables (TRe) secured a 500 MWp solar project in Kedah, representing approximately 25% of the total capacity awarded under the programme.

To finance the development, TRe, through its subsidiary TNB Kuala Muda Solar Sdn. Bhd. (TKMS), issued RM1.05 billion under the ASEAN Green Sustainable and Responsible Investment (SRI) Sukuk Wakalah programme. Construction of the project commenced in 2025 and, upon commissioning, the facility is expected to avoid approximately 0.6 million tCO<sub>2</sub>e emissions annually.

In addition, TRe is partnering with Sabah Electricity to develop a 15 MWac large-scale solar project in Sabah. The construction of the plant began in November 2025 with a target of commencing commercial operations in December 2026.



Our TNB Bukit Selambau Solar (TBSS) and TNB Bukit Selambau Solar 2 (TBSS 2) plants in Kedah avoid 90,000 tCO<sub>2</sub>e emissions annually.

### RENEWABLE ENERGY OFFTAKE UNDER THE CORPORATE GREEN POWER PROGRAMME

The Corporate Green Power Programme (CGPP) enables businesses to procure renewable energy through Virtual Power Purchase Agreements (VPPAs) with solar developers. This mechanism allows corporates to claim renewable energy usage and meet emissions targets without altering their physical electricity supply, while accelerating the development of solar projects in Malaysia.

TRe has developed 90 MWac of solar generation capacity under the CGPP. This includes a wholly owned 30 MWac facility and two (2) joint-venture plants with a combined capacity of 60 MWac. Both joint venture plants were successfully commissioned in March and April 2026, while the wholly owned 30 MWac plant is on track to achieve Commercial Operation Date (COD) in Q2 2026.

### EXPANDING RENEWABLE ENERGY THROUGH HYDROELECTRIC PROJECTS

We continue to strengthen our hydroelectric portfolio, currently operating 2.5 GW of large hydro capacity as a cornerstone of Malaysia's renewable mix. We are developing the 300 MW Nenggiri Hydroelectric Project and implementing the 648 MW Sungai Perak Life Extension Programme, which together are expected to avoid approximately 1.9 million tCO<sub>2</sub>e annually and advance our decarbonisation strategy.

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

**NENGGIRI HYDROELECTRIC PROJECT**

Our 300 MW Nenggiri Hydroelectric Project is 73% complete and on track for commercial operation in Q2 2027. Reservoir impoundment is scheduled to commence in September 2026, marking a significant milestone in the project's overall progress. Once operational, it is expected to avoid approximately 0.6 million tCO<sub>2</sub>e annually.



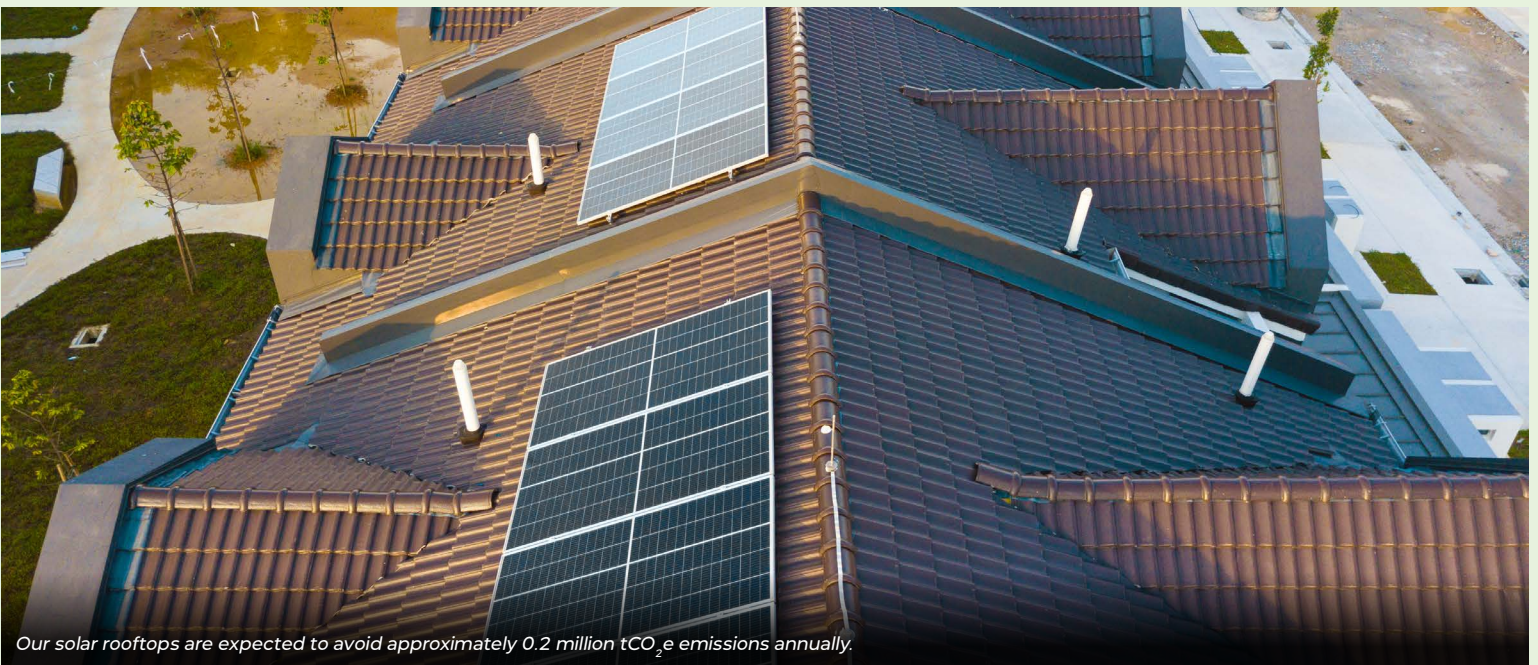
Our 300 MW Nenggiri Hydroelectric Project is 73% complete and on track for commercial operation in Q2 2027.

**SUNGAI PERAK HYDROELECTRIC LIFE EXTENSION PROGRAMME (LEP)**

Under the Life Extension Programme, the Sungai Perak Hydro scheme is being upgraded from 650MW to approximately 700MW. This upgrade extends asset life by 30-40 years, improves operational efficiency and supports long-term renewable energy generation while reducing carbon intensity. Project progress is at 33% with the first unit at Chenderoh scheduled for commercial operation in Q4 2026. Once completed, the programme is expected to avoid approximately 1.3 million tCO<sub>2</sub>e emissions annually.

**SOLAR ROOFTOP**

We successfully commissioned 47 MWp of solar rooftop capacity in 2025 through our subsidiary GSPARX, bringing our cumulative installed capacity to 216 MWp. This includes 1,988 residential customers, nine (9) property developers and 405 commercial and industrial customers, reflecting TNB's commitment to enabling communities and businesses to adopt clean energy solutions.



Our solar rooftops are expected to avoid approximately 0.2 million tCO<sub>2</sub>e emissions annually.

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

### INTERNATIONAL RENEWABLE ENERGY PROJECTS

TNB's international renewable energy portfolio currently stands at around 1 GW and is expected to grow to approximately 2 GW by 2030. Our portfolio comprises 863 MWp of solar power and 165.4 MW of wind, collectively avoiding approximately 0.3 million tCO<sub>2</sub>e annually.

We are advancing our international renewable energy expansion through strategic partnerships led by our subsidiaries Vantage RE in the UK and Europe and Spark Renewables in Australia.

In 2025, two (2) greenfield solar plants in the United Kingdom developed by Vantage RE achieved commercial operation with a combined capacity of 101.7 MWp.

Dinawan Energy Hub (DEH) in Australia was awarded Access Rights to the New South Wales (NSW) South-West Renewable Energy Zone (SWREZ), with a total capacity of approximately 1 GW in April 2025. In October 2025, Dinawan Wind Farm Stage 1 (357 MW) was successfully awarded a revenue support contract under the Federal Government's Capacity Investment Scheme (CIS), an initiative designed to accelerate the deployment of renewable energy generation across Australia. On 2 April 2026, Spark Renewables received final state planning approval for a solar and battery storage project in the New South Wales Riverina region, comprising 800 MW of solar PV and 356 MW / 1,574 MWh of grid-scale storage. Following this, the Dinawan Wind Farm's Development Approval and grid connection application are currently under processing, while the Dinawan Solar Hybrid project is progressing its Environment Protection and Biodiversity Conservation Act 1999 application.

Spark Renewables has executed a Connection Process Agreement with Transgrid for the 710 MW Wattle Creek Project, comprising a 350 MW/1,400 MWh standalone BESS and a 180 MW solar project with 180 MW/720 MWh BESS, marking a key step towards grid connection applications. The standalone BESS is in procurement and advancing its grid connection and Development Approval processes, with commercial operation targeted for 2028.

### TNB'S INTERNATIONAL RENEWABLE ENERGY PORTFOLIO

	Solar (MWp)	Wind (MWp)
Vantage RE	742.5	165.4
Spark Renewables	120.5	-

*Note:  
The numbers above are based on aggregation.*

Through disciplined execution, strategic acquisitions, greenfield development and capability building, we continue to grow our portfolio, optimise technical performance, deliver sustainable financial returns and reduce carbon emissions intensity. This integrated approach reinforces TNB's aspiration as a leading sustainable energy solutions provider, delivering sustainable growth, long-term shareholder value and meaningful contributions to a low-carbon future.

### SCOPE 2 EMISSIONS: IMPROVING ENERGY EFFICIENCY WITHIN OUR OPERATIONS

Our Scope 2 emissions result from electricity consumption and cooling across TNB buildings and substations nationwide. We track these emissions through a digitised data collection system, enabling accurate, timely and consistent reporting that supports energy efficiency measures and strengthens our decarbonisation efforts. To reduce these indirect emissions, we have implemented initiatives, such as the "Drip by Drip, Watt by Watt" energy efficiency campaign and our Green Building Programme, reinforcing our commitment to sustainable operations across the TNB network.

<b>Enhancing Energy Efficiency at TNB Office Buildings</b>	<p>▶ We are actively reducing electricity and water consumption at 109 TNB-owned offices through the "Drip by Drip, Watt by Watt" campaign, which was rolled out in July 2023. In 2025, our efforts resulted in a reduction of 144,027 kWh in electricity consumption, equivalent to an estimated reduction of 111 tCO<sub>2</sub>e in Scope 2 emissions and RM4,515.2 in cost savings.</p>
<b>Our Flagship Green Building: TNB Platinum Campus</b>	<p>▶ The TNB Platinum Campus is developed in line with Green Building Index (GBI) Platinum standards, reflecting our dedication to environmental stewardship and energy efficiency. The building achieves 25% lower electricity consumption compared to conventional designs, supported by a photovoltaic system that supplies up to 2% of total energy needs. Energy performance is continuously monitored through an Integrated Building Management System equipped with advanced energy sub-metering.</p> <p>Sustainable landscaping plays a critical role in reducing heat and cooling demand. Planting frames harness prevailing winds to naturally cool the buildings, lowering air-conditioning costs by approximately 20%. Extensive greenery reduces surface temperatures by up to 7°C, with 50% of the site dedicated to soft landscaping that acts as a natural heat exchanger, further improving ambient comfort.</p> <p>To maintain its GBI Platinum certification, the campus undergoes reassessment every three (3) years, ensuring ongoing compliance with the highest green building standards. Beyond environmental benefits, these features enhance employee well-being and contribute positively to the surrounding community. The TNB Platinum Campus is certified with a Platinum rating from the GBI.</p>

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

**SCOPE 3 EMISSIONS: EMBRACING DIGITALISATION AND AUTOMATION**

We continue to disclose indirect emissions from Categories 6 (Business Travel) and 7 (Employee Commuting) in Peninsular Malaysia. Leveraging internal monitoring systems, we apply a distance-travelled-based methodology in line with the GHG Protocol Scope 3 Calculation Guidance (2013).

Since 2024, data collection has been enhanced through automation and integration with human resource systems, capturing home-to-office distances, check-in and check-out times, work-related travel and transport modes.

Moving forward, we are advancing our Scope 3 strategy across the organisation. An initial assessment identified the most relevant categories in TNB's value chain to establish baselines and evaluate readiness for broader GHG management.

The next phase will focus on in-depth analyses to develop targeted strategies and action plans, prioritised according to data availability, operational relevance and stakeholder readiness. This ensures our Scope 3 reporting remains systematic, data-driven and aligned with the value chain.

**RISK MANAGEMENT**

We continuously assess the risks and impacts of GHG emissions on our business operations and growth, guided by the TNB Risk Management Framework across short-, medium- and long-term horizons.

 [For more information on the Risk Management Framework, please refer to the SORMIC section in the IAR 2025, pages 293 to 300.](#)

In 2025, we have conducted scenario simulations to evaluate potential financial implications as part of this proactive approach and taking into account the Government's planned carbon tax for the energy sector in 2026. The analysis indicates that a balanced carbon pricing framework will help to safeguard energy affordability, system reliability and investment sustainability.

To mitigate these risks, we are actively engaging policymakers and regulators to assist in the development of a carbon pricing framework that balances decarbonisation objectives with system reliability and financial sustainability. At the same time, we are accelerating efforts to reduce the carbon intensity of our generation portfolio through renewable capacity expansion, coal-to-gas transition and efficiency improvements at existing plants. These measures will help to structurally lower future tax exposure while supporting Malaysia's energy transition.

**METRICS AND TARGET**

We have implemented a digitalised platform to track and monitor emissions across TNB. The system automates data collection, consolidates information through a central data lake and supports accurate reporting aligned with relevant standards. Interactive dashboards provide near-real-time visibility, enabling data-driven decisions to reduce emissions and improve operational performance.

**METHODOLOGY**

[IFRS S2.B14, B26, B27](#)

We measure our carbon management performance through GHG emissions calculated in line with internationally recognised methodologies, including the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, the GHG Protocol and the ISO 14064-1 framework.

Emissions data are consolidated using the equity share approach to reflect our proportional ownership in investments. This approach aligns emissions reporting with economic exposure and investment responsibility.

The emissions inventory accounts for all major greenhouse gases in line with international standards, including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulphur hexafluoride (SF<sub>6</sub>) and hydrofluorocarbons (HFCs).

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

### SCOPE 1

*IFRS S2.B21-22, B29*

**TNB Quantifies Scope 1 Emissions Using the Standard Formula:**

**GHG  
Emissions**

=

**Activity  
Data**

×

**Emissions  
Factor**

Scope 1 covers direct emissions from fuel combustion, mobile sources and fugitive releases across TNB operations in Peninsular Malaysia and renewable energy assets at UK, Ireland and Australia, ensuring comprehensive coverage of core activities. Activity data are sourced from metered fuel consumption, purchase records or equipment logs, depending on the category.

Emission factor are primarily based on IPCC Guidelines and supplemented with supplier-specific data where available to enhance accuracy. For fuels used in power generation, factors are derived from the net calorific value (NCV) (or lower heating value), calculated by multiplying fuel mass or volume by its NCV. Any data provided in gross calorific value are converted to NCV to ensure alignment with IPCC methodology.

Calorific properties for coal and natural gas are obtained directly from supplier technical data sheets for traceability, while standard NCV and density values recommended under the IPCC are applied for distillate fuels. For mobile combustion, IPCC default emissions factors are used for petrol, diesel, NGV and LPG. Fugitive emissions such as refrigerants or operational gas releases are calculated using activity data and Global Warming Potentials (GWPs) based on the IPCC Fifth Assessment Report (AR5).

### SCOPE 2

*IFRS S2.29(a)(i)(1-2), B30*

Scope 2 emissions are calculated using the location-based approach covering core business operations within Peninsular Malaysia in accordance with the GHG Protocol. As our electricity consumption is primarily imported from the national grid, all our business entities (except generation facilities) use the National Grid Emissions Factor published by the Energy Commission (EC).

### SCOPE 3

*IFRS S2.29(a)(vi), B32*

Scope 3 GHG emissions were assessed for Category 6 (Business Travel) and Category 7 (Employee Commuting) for TNB-hired employees across our business operations. These were calculated using a distance-travelled-based method, based on available data and the capabilities of our internal monitoring systems. This approach is aligned with the GHG Protocol Scope 3 Calculation Guidance (2013). Emissions factors for Scope 3 are sourced from internationally recognised official sources, i.e., UK Department for Environment, Food & Rural Affairs (DEFRA).

### ASSURANCE

Scope 1 and 2 emissions undergo internal review to enhance the accuracy and reliability of our disclosures and support continuous improvement in our carbon accounting practices.

### GHG EMISSIONS TARGET REVIEW

*IFRS S2.34(a)(b)(c)(d)*

In 2024, we established a short-term target to reduce Scope 1 carbon emissions intensity by 5% annually, supporting our long-term goals of a 35% reduction by 2035 and Net Zero by 2050. The target was set following an extensive review of existing and planned decarbonisation initiatives, including fuel transition, renewable capacity expansion and technology deployment.

The newly established target, together with the Carbon Management Strategy and Renewable Energy Expansion Plan, was approved by the SETC, chaired by the President/Chief Executive Officer. These strategies provide a clear pathway for near-term reductions and progress towards long-term commitments.

### GREENHOUSE GAS EMISSIONS TARGETS

*IFRS S1.45 & 46; IFRS S2.33(a)(d)(e)(f)(g), 34(c), 35, 36(a)(b)(c)(d)(e)(i)(ii)(iii)(iv); IF-EU-110a.3.2*

We are progressing towards a low-carbon future by reducing coal dependence, expanding renewable capacity, strengthening the grid and managing climate-related risks. This transition opens opportunities across renewable generation, transmission, distribution and energy storage. Aligned with our Net Zero 2050 aspiration, we remain committed to reducing emissions in line with national and global targets while maintaining system reliability and affordability.

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

To support this ambition, we have established climate-related targets as key milestones towards Net Zero by 2050 and continue our commitment not to invest in new greenfield coal-fired power plants.

### GHG Target: Scope 1 Emissions Intensity

Time Frame and Target Year	Short-Term (2025)	Medium-Term (2035)	Long-Term (2050)
<b>Target</b>	5% Annual Reduction of Scope 1 Emissions Intensity	35% Reduction of Scope 1 Emissions Intensity	Net Zero Emissions
<b>Base Year</b>	2024	2020	
<b>Base Year Emissions Intensity</b>	0.5571 tCO <sub>2</sub> e/MWh	0.57 tCO <sub>2</sub> e/MWh	

As coal currently accounts for approximately 80% of TNB's total emissions, we have established a series of actions to address this impact and accelerate our transition:

**50% reduction**  
of coal capacity by 2035 and 100% by 2050 compared to the base year 2020

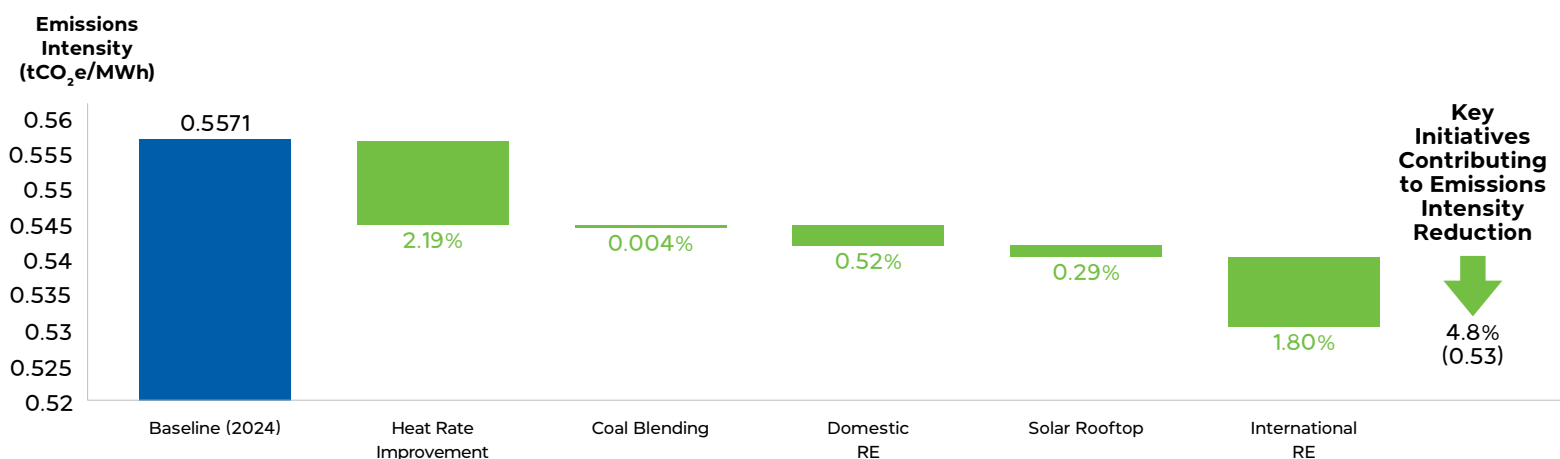
**Revenue from coal generation does not exceed 25%**  
of our total revenue before intercompany elimination

### SCOPE 1 EMISSIONS INTENSITY PERFORMANCE

Malaysia's GDP grew by 5.2% year-on-year in 2025, driven by strong domestic demand from approximately 10 million customers, robust performance in the services and manufacturing sectors, improving exports and supportive policy and reform measures. Over the same period, electricity demand in Peninsular Malaysia increased by 1.6%. Within this operating environment, TNB committed to achieving a 5% reduction in emissions intensity in 2025 from a baseline of 0.5571 tCO<sub>2</sub>e/MWh.

We have identified and implemented several emissions reduction initiatives to support this commitment. These include power plant heat rate (efficiency) improvements, coal blending, microalgae and optimisation of renewable energy (RE) net generation from international RE assets, domestic RE assets and solar rooftops. Collectively, these initiatives achieved a 4.8% reduction in emissions intensity to 0.53 tCO<sub>2</sub>e/MWh.

### Actual Performance of Each Initiative Contributing to the Reduction of Emissions Intensity



Despite these efforts, actual emissions intensity increased by 1.4% from the 2024 baseline to 0.565 tCO<sub>2</sub>e/MWh, primarily due to external system constraints beyond operational control. A key factor was the Putra Heights gas pipeline fire incident in the second quarter of 2025, which disrupted the gas supply to the industry and power sectors from 1 April to 1 July 2025 and constrained gas-fired power plant operations, particularly in the Klang Valley. To maintain grid stability and meet electricity demand in the central region, higher dispatch from coal-fired generation was required, notably the 2,200 MW *Stesen Janakuasa Sultan Salahuddin Abdul Aziz* (SJSSAA) plant. Coal-fired generation emits approximately 1.8 times more CO<sub>2</sub> per MWh than gas-fired plants, contributing to the increase in emissions intensity.

Following the Putra Heights gas pipeline fire incident, gas supply curtailments persisted into the second half of 2025, restricting gas-fired power plant operations for approximately 45 days across the third and fourth quarters of 2025. At the same time, electricity demand continued to rise, requiring full utilisation of available generation capacity to maintain system reliability. During this period, unplanned generator outages and operational disruptions created additional system constraints, necessitating increased dispatch of coal-fired generation, including TNB-owned plants. These combined factors contributed to a higher overall emissions intensity.



## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Other indirect (Scope 3) GHG emissions - Business travel by transportation type</b>								
GRI 305-3	By air travel	tCO <sub>2</sub> e	1,319	532	988	-	-	
	By land travel	tCO <sub>2</sub> e	35,942	34,327	56,132	-	-	
<b>Other indirect (Scope 3) GHG emissions - Employee commuting by mode of transport</b>								
GRI 305-3	By car	tCO <sub>2</sub> e	54,067	53,888	95,862	-	-	
	By motorcycle	tCO <sub>2</sub> e	8,030	8,003	14,237	-	-	
	By e-hailing	tCO <sub>2</sub> e	491	439	781	-	-	
	By public transport	tCO <sub>2</sub> e	440	489	871	-	-	
<b>GHG emissions intensity</b>								
GRI 305-4	Scope 1	tCO <sub>2</sub> e/MWh	0.5465	0.5571	0.5370 <sup>3</sup>	5% reduction of emissions intensity compared to 2024	5% annual intensity reduction	
<b>GHG emissions avoidance</b>								
GRI 305-5	Total avoided emission	Million tCO <sub>2</sub> e	7.38	8.46	8.75	-	-	
	Advanced Combined Cycle Technology	tCO <sub>2</sub> e	3,550,034	3,249,752	3,241,789	-	-	
	Large Hydro Power	tCO <sub>2</sub> e	3,098,284	3,568,917	3,791,562	-	-	
	Clean Coal Technology	tCO <sub>2</sub> e	575,560	1,381,184	1,381,023	-	-	
	Small Renewable Energy	tCO <sub>2</sub> e	70,410	108,811	185,263	-	-	
	Large Scale Solar	tCO <sub>2</sub> e	81,307	145,271	146,413	-	-	
	New Streetlight Fittings	tCO <sub>2</sub> e	1,954	9,528	0	-	-	
	Tree Planting	tCO <sub>2</sub> e	842	1,101	1,209	-	-	
	Electric Vehicles	tCO <sub>2</sub> e	18	603	334	-	-	
<b>GREENHOUSE GAS EMISSION</b>								
<b>Gross global Scope 1 GHG emissions<sup>4</sup></b>								
IF-EU-110a.1	CO <sub>2</sub>	Metric tonnes	-	-	41,135,914.05	-	-	
	CH <sub>4</sub>	Metric tonnes	-	-	437.23	-	-	
	N <sub>2</sub> O	Metric tonnes	-	-	819.65	-	-	
	HFCs	Metric tonnes	-	-	1.17	-	-	
	SF <sub>6</sub>	Metric tonnes	-	-	3.73	-	-	
<b>Percentage of emissions covered under regulation</b>								
IF-EU-110a.1	Percentage of GHG emissions covered under emissions-limiting regulation	%	-	-	0	-	-	None of TNB's reported emissions fall within emissions-limiting regulatory body
	Percentage of GHG emissions covered under emissions-reporting regulation	%	-	-	0	-	-	None of TNB's reported emissions fall within emissions-reporting regulatory body
<b>GHG emissions associated with power deliveries<sup>5</sup></b>								
IF-EU-110a.2	GHG emissions associated with power deliveries	Million tCO <sub>2</sub> e	-	-	98,679,238.61	-	-	
<b>GENERATION PORTFOLIO</b>								
<b>Installed capacity broken down by primary source</b>								
G4-EU1	Total Installed Capacity	MW	17,949.54	16,385.35	16,028.59	-	-	
G4-EU2	Gas	MW	6,147.77	5,145.07	4,605.90	-	-	
G4-EU3	Coal	MW	7,378.89	6,790.00	6,790.00	-	-	
G4-EU4	Hydro	MW	2,666.55	2,666.55	2,682.96	-	-	
G4-EU5	Diesel	MW	258.96	203.18	225.11	-	-	
G4-EU6	Solar	MW	1,135.85	1,298.90	1,433.36	-	-	
G4-EU7	Biomass	MW	5.00	5.00	5.00	-	-	
G4-EU8	Biogas	MW	2.40	2.40	2.33	-	-	
G4-EU9	Wind	MW	179.47	179.47	179.47	-	-	
G4-EU10	Oil	MW	142.88	71.44	71.44	-	-	
G4-EU11	Solar Hybrid	MW	31.77	23.34	33.02	-	-	

## GREENHOUSE GAS EMISSIONS AND ENERGY RESOURCE PLANNING

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Net energy output broken down by primary energy source</b>								
IF-EU-000.D	Total Net Energy Output	GWh	79,535.45	73,185.02	75,373.46	-	-	
G4-EU2	Gas	GWh	26,065.97	22,238.84	19,769.21	-	-	
	Coal	GWh	44,826.58	40,678.64	46,158.96	-	-	
	Hydro	GWh	6,452.92	7,148.16	7,380.92	-	-	
	Diesel	GWh	365.68	532.65	412.82	-	-	
	Solar	GWh	572.01	1,274.96	1,023.61	-	-	
	Biomass	GWh	13.16	31.37	15.61	-	-	
	Biogas	GWh	13.80	-	9.90	-	-	
	Wind	GWh	544.43	852.24	447.17	-	-	
	Oil	GWh	660.52	395.21	107.68	-	-	
	Solar hybrid	GWh	20.38	32.95	47.58	-	-	
<b>ENERGY MANAGEMENT</b>								
<b>Energy consumption within the organisation</b>								
Bursa C4(a) [Energy Management]	Total energy consumption within the organisation	GJ	305,274,361.37 <sup>6</sup>	321,199,523.47 <sup>6</sup>	327,104,372.99 <sup>6</sup>	1% reduction annually	-	
GRI 302-1								
GRI 302-3	Energy intensity ratio for the organization	GJ/MWh	5.39	4.30	4.29	Less than 6 GJ/MWh	-	
<b>Total fuel consumption within the organisation from renewable sources</b>								
GRI 302-1	Biomass	GJ	1,134,665	980,948	178,473	-	-	
	Biodiesel (7% Renewable)	GJ	1,444	1,068	1,649	-	-	
	Biogas	GJ	246,790.50 <sup>7</sup>	52,722.26 <sup>7</sup>	35,524.40	-	-	
	Total fuel consumption within the organization from renewable sources	GJ	1,382,900	1,034,738	180,122	-	-	
<b>Total fuel consumption within the organisation from non-renewable sources</b>								
GRI 302-1	Coal	GJ	452,842,875	366,740,751	415,080,236	-	-	
	Natural gas	GJ	194,060,333	193,211,458	150,339,667	-	-	
	Distillate fuel	GJ	1,846,890	1,387,891	2,701,689	-	-	
	Residual Fuel Oil / Medium Fuel Oil	GJ	1.94	487,250	3,427,255	-	-	
	Biodiesel (93% Fossil)	GJ	19,182	14,191	2,893	-	-	
	Total fuel consumption within the organisation from non-renewable sources	GJ	648,769,282	561,841,541	571,551,740	-	-	
<b>Raw materials consumed for electricity generation within the organisation from non-renewable sources</b>								
GRI 302-1	Coal	Tonnes	-	-	23,906,183.93	-	-	
	Natural gas	MMBtu	-	-	142,494,491.68	-	-	
	Distillate fuel	Litres	-	-	65,383,638.54	-	-	
	Residual Fuel Oil / Medium Fuel Oil	Litres	-	-	3,427,255.19	-	-	
	Biodiesel (93% Fossil)	Litres	-	-	8,501,240.87	-	-	
<b>Hydro and solar power generation</b>								
GRI 302-1	Large scale solar and hydro generation	GJ	22,665,154	25,480,236	26,287,291	-	-	
<b>Total energy purchased for consumption</b>								
GRI 302-1	Electricity purchased for consumption	GJ	1,659,736	1,408,189	1,799,569.32	-	-	
<b>Total energy sold by the organisation</b>								
GRI 302-1	Electricity sold by the organization	GJ	269,937,097	268,714,834	273,372,499	-	-	

<sup>1</sup> Data restated based on audited numbers by internal auditor (FY2024) and external auditor (FY2023).

<sup>2</sup> Excluding external factors that lead to absolute emissions of 41.36 million tCO<sub>2</sub>e in FY2025.

<sup>3</sup> Excluding external factors that lead to emissions intensity of 0.565 tCO<sub>2</sub>e/MWh in FY2025.

<sup>4</sup> GHG emissions breakdown by types of gases is based on total emissions, inclusive of external factors.

<sup>5</sup> GHG emissions associated with power delivery include emissions from electricity generated by TNB's power plants and electricity purchased from Independent Power Producers (IPPs), calculated using the Grid Emission Factor.

<sup>6</sup> Restatement due to revision of the methodology formula.

<sup>7</sup> Restatement of FY2023 based on updated figures from BE.

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

**IFRS S2 MT 3 CLIMATE RESILIENCY**

**WHY IS IT IMPORTANT?**

The increasing impacts of climate change are creating greater challenges for Malaysia's infrastructure systems, economic development and environmental resilience. Rising temperatures and changing rainfall patterns are contributing to higher risks of floods, soil movement, extreme winds, extreme heat and coastal inundation, with significant implications for the reliability of essential services, particularly electricity supply. In response, the Malaysian government has strengthened its climate governance through the Malaysia National Climate Change Policy 2.0, which focuses on climate adaptation, disaster risk reduction and integrating climate resilience into development planning to support a more climate-resilient nation through robust infrastructure, science-based decision-making and collaborative action.

Supporting these national efforts, we are taking a proactive approach to climate adaptation through the implementation of the TNB Climate Adaptation Strategy, which embeds climate risk considerations across the asset lifecycle and emergency preparedness to strengthen asset resilience and minimise financial losses. Through enhanced climate risk assessments, investments in climate adaptation plans and collaboration with government and scientific bodies, we are strengthening our capacity to manage both current and emerging climate risks while supporting the nation's broader transition towards a climate-resilient future.

**OPPORTUNITY AND RISK**

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Enhancing Climate Resilience Across Generation and Grid Assets	Risk: Inadequate Climate Adaptation for TNB Critical Assets Impacting the Reliability of Electricity Supply																
<b>Description</b>	<p>TNB has the opportunity to strengthen climate resilience and operational reliability across its generation and grid assets amid rising climate risks such as floods and extreme weather. By embedding resilience into asset planning, asset construction, and assets under operation, TNB safeguards asset value, ensures uninterrupted power supply, and supports long-term system reliability.</p> <p>Leveraging geospatial analytics, digital monitoring, and predictive risk assessments across more than 90,000 assets, TNB continuously evaluates exposure to physical hazards and integrates these insights into site selection, asset design, investment prioritisation, planning, construction and maintenance strategies. This enables the company to avoid high-risk locations, develop more competitive assets and enhance system resilience.</p> <p>For generation assets, targeted measures-including flood protection, cooling system upgrades, and structural reinforcements-ensure reliable output under adverse conditions and protect long-term revenues. For network assets, investments such as substation elevation, transmission tower reinforcement, and enhanced protection systems reduce service disruptions, extend asset lifespans and translate into stable regulated returns.</p>	<p>TNB's generation, transmission and distribution infrastructures are widely distributed across Peninsular Malaysia and Sabah, comprising approximately 90,000 assets and 750,000 km of network across diverse geographical locations, including hilly terrains, urban centres and flood-prone areas.</p> <p>This widespread footprint increases exposure of TNB's critical assets to climate impacts such as extreme rainfall, flooding, heatwaves, extreme wind, coastal inundation and landslides. Inadequate climate adaptation measures such as insufficient flood protection, lack of heat-resilient asset design or weak slope stabilisation could leave high-risk assets vulnerable to physical damage. Such vulnerabilities may result in prolonged electricity supply disruptions, higher repair and maintenance costs and reduced long-term resilience, affecting power reliability and service continuity.</p>																
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens asset reliability and lifespan across generation and grid operations by embedding climate-resilient design, prioritisation and maintenance practices.</li> <li>Reduces exposure to climate-related disruptions, ensuring continuity of power supply and supporting TNB's regulated and non-regulated value pools.</li> </ul>	<ul style="list-style-type: none"> <li>Major electricity supply disruptions may weaken TNB's reliability-based value proposition and customer experience.</li> </ul>																
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Guides integration of climate risk analytics into asset planning, investment sequencing, and long-term system design across RP4/RP5 and Energy Transition (ET) roadmaps.</li> <li>Prioritises targeted resilience upgrades (including flood protection, cooling system reinforcement, and elevated substation design) to safeguard high-risk assets.</li> </ul>	<ul style="list-style-type: none"> <li>Embed climate considerations into early-stage asset planning and design, supported by robust climate risk assessments.</li> <li>Allocate sufficient capital for adaptation measures at high-risk sites and enhance proactive monitoring to minimise operational disruptions.</li> </ul>																
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Supports long-term value protection through avoided outage-related losses, reduced repair costs, and extended asset lifespans.</li> <li>Enables stable, regulated returns by ensuring a reliable performance remains within allowed thresholds and minimising unplanned expenditure.</li> </ul>	<ul style="list-style-type: none"> <li>Higher operating costs resulting from damage recovery from the impact of climate hazards.</li> </ul>																
<b>Time Horizon</b>	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>CAPEX RM400 mil</td> <td>CAPEX &gt;RM450 mil</td> <td>CAPEX &gt;RM450 mil</td> <td>CAPEX &gt;RM450 mil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	CAPEX RM400 mil	CAPEX >RM450 mil	CAPEX >RM450 mil	CAPEX >RM450 mil	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>Cost Increase RM26.8 mil</td> <td>Cost Increase RM50 mil – RM450 mil</td> <td>Cost Increase &lt;RM50 mil</td> <td>Cost Increase &lt;RM50 mil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	Cost Increase RM26.8 mil	Cost Increase RM50 mil – RM450 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil
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## CLIMATE RESILIENCY

### GOVERNANCE IN ACTION

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

The TNB Board and the TNB Board Sustainability and Risk Committee (BSRC) oversee the TNB climate change strategy and management.

*Refer to the SORMIC in IAR pages 293 to 300 and BSRC report in the IAR pages 276 to 278.*

The Sustainability and Energy Transition Committee (SETC), chaired by the TNB President/Chief Executive Officer, provides strategic direction and governance on climate-related issues to ensure the organisation remains resilient and aligned with national priorities. This includes oversight of climate-related risk, opportunities and adaptation planning, ensuring that climate considerations are embedded into strategic and operational decisions.

In 2025, TNB advanced its adaptation agenda through the development of the TNB Climate Adaptation Strategy, endorsed by the Group Executive Management Committee (GEMC), chaired by the TNB President/Chief Executive Officer. The strategy outlines a systematic approach to identifying and assessing climate risks and integrating adaptation measures into assets under planning, assets under construction and assets under operation.

Process controls and procedures to mitigate climate risks, including the monitoring of high-risk assets and the implementation status of climate adaptation plans, are undertaken through the Group Risk Management Working Committee and management level committees at the business entities. These committees provide structured review, escalation and assurance to ensure that climate-related risks are managed systematically.

These efforts reinforce TNB’s long-standing commitments under the TNB Sustainability Policy and TNB Environmental Policy, reflecting a unified approach to responsible growth, environmental stewardship and long-term resilience.

### STRATEGY

We recognise that the climate-physical risks pose material threats to operational continuity across our value chain, asset performance and the reliability of electricity supply. These risks are expected to intensify with climate change, directly influencing asset resilience, maintenance costs and long-term investment priorities.






Our priority is to ensure that our business is resilient in addressing climate exposures with continuous assessment to adapt to climate-physical risks in the short, medium and long-term horizons, defined as follows:

IFRS S2.10(c)

S SHORT-TERM: UNTIL 2026	M MEDIUM-TERM: UNTIL 2030	L LONG-TERM: UNTIL 2050
The 1-year ahead timeline aligns with the company’s annual operating plan and annual budget planning.	This timeline aligns with the RT 2.0 strategy.	This timeline aligns with the TNB’s Net Zero target by 2050.

We have prioritised five (5) climate hazards that are either event-driven (acute) or resulting from long-term changes in climate patterns (chronic), as described below:

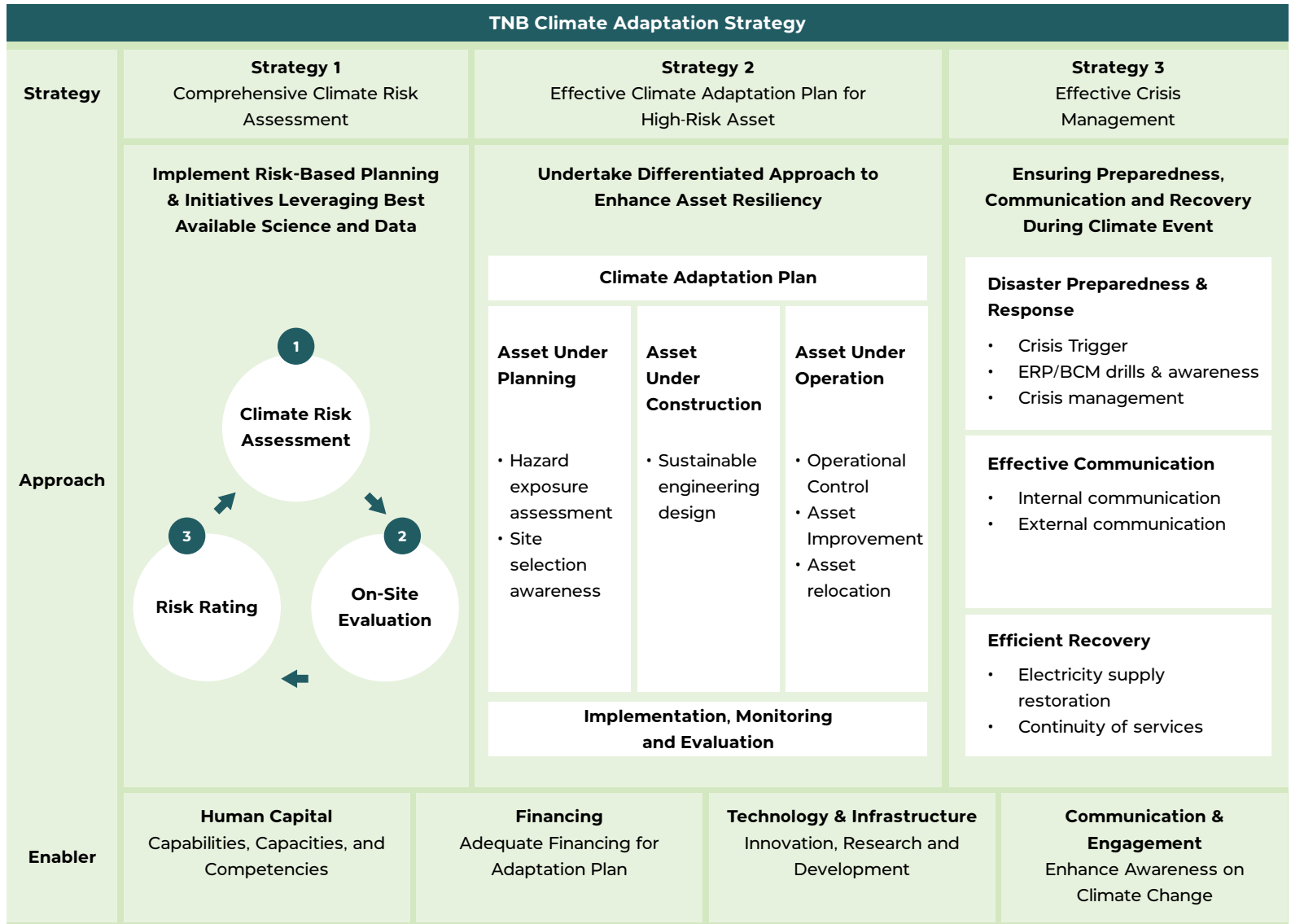
IFRS S2.10(a)(b), S2 13(b)

Type	Climate Hazard	Description	Geographical Boundary	Time Horizon That the Risk Is Expected to Occur
<b>Acute</b> Event-driven risks which are increasing in severity and frequency	Flood 	Malaysia is exposed to monsoon rains, particularly from November to March, with low-lying areas along the east coast being highly vulnerable. Flooding can damage critical infrastructure such as substations and transformers, causing short circuits, equipment failure, and power outages. Access to affected sites may also be restricted, delaying repair and restoration efforts.	Peninsular Malaysia	S M L
	Extreme Heat 	Rising ambient temperatures may affect thermal power plants’ efficiency and increase fuel costs. Solar assets may operate sub-optimally in high temperatures or with insufficient sunlight, thus reducing output. Extreme heat may also affect grid system reliability due to overloading.	Peninsular Malaysia	S M L
	Extreme Wind 	Our assets, particularly transmission lattice towers and service poles, as well as solar power plants, are vulnerable to extreme wind. Extreme winds can cause the collapse of lattice towers, uprooting of poles, dislodging or breaking solar panels, leading to costly repairs and downtime.	Peninsular Malaysia	S M L
<b>Chronic</b> Risks arising from longer-term shifts in climatic patterns	Soil Movement 	Soil movement, including landslides and ground subsidence, can destabilise asset foundations, causing tilting, misalignment, or structural collapse. This leads to asset damage such as line tension imbalance, conductor damage, leading to power outages and increased repair costs.	Peninsular Malaysia	S M L
	Coastal Inundation 	Our coastal assets are exposed to the risk of rising sea levels. Seawater intrusion can contaminate freshwater supplies and corrode infrastructure. Assets submerged during high tides and storms can cause extensive damage, while prolonged exposure to saltwater accelerates metal erosion and compromising structural integrity.	Peninsular Malaysia	L

**OUR STRATEGY FOR CLIMATE CHANGE MANAGEMENT**

IFRS S2.13, 14(a)

The TNB Climate Adaptation Strategy is aligned with the National Climate Change Policy 2.0, particularly Strategic Thrust 3, which emphasises strengthening adaptation and climate resilience to safeguard socio-economic development.



Guided by the TNB Climate Adaptation Strategy, our management of climate change cuts across the asset lifecycle, from asset under planning, asset under construction and asset under operation.

**Asset Under Planning**

Climate risk assessment is embedded in early-stage planning and investment decision making. The assessments inform strategic site selection, technology choices, and design standards, ensuring that new assets remain resilient under projected future climate scenarios.

**Asset Under Construction**

Climate-resilient engineering and design are incorporated during the project stage to enhance asset resiliency, such as adopting higher design thresholds for flood protection, wind loading, and temperature tolerance. This also includes implementing robust project management to mitigate climate-related construction risks such as prolonged rainfall or extreme weather events.

**Asset Under Operation**

Climate risks are managed through strengthened operational controls and continuous asset improvements to address emerging climate impacts. Where necessary, asset relocation is implemented to minimise service disruptions and ensure the continued reliability of electricity supply for sustainable business operations.

## CLIMATE RESILIENCY

IFRS S2.16(c)(ii), 29(e)

In addition, we are progressively integrating climate adaptation measures into our annual business planning and capital allocation processes, including within the Incentive-Based Regulation framework, with investment prioritisation informed by asset exposure to climate risks, system demand and the criticality of customers served.






Embedding adaptation initiatives into the business planning cycle ensures that climate resilience considerations are systematically factored into capital allocation decisions, asset reinvestment priorities and project approvals. This approach enables decision-makers to direct financial and operational resources towards high-risk locations and critical infrastructure that require urgent adaptation measures, while our risk mitigation strategy also includes Industrial All Risk insurance, providing the necessary coverage to recover financially from climate-related damages.

In 2025, RM139 million has been earmarked for climate adaptation measures across 180 identified assets, focusing on resilience against flooding and soil movement.

### PROACTIVE ADAPTATION AND MITIGATION MEASURES





IFRS S2.14(a)(b)

Our proactive adaptation strategy is built on three (3) core principles: Operational Control, Asset Improvement, and Asset Relocation. Years of early and sustained investment in these areas have fortified our infrastructure, significantly reducing vulnerability to evolving climate challenges. Our continuous efforts to address five (5) identified climate hazards are outlined below:

Climate Hazard	Example of Adaptation Measures
<b>Flood</b> 	<ul style="list-style-type: none"> <li>Implement flood mitigations such as elevating asset structure, installation of flood barrier, installation of water pump and water level sensors for identified asset within flood prone area</li> <li>Develop and implement flood response plan, including shutdown procedures, dam water release procedure followed by rapid response from Emergency Response Team (ERT)</li> <li>Secure adequate insurance coverage for flood-related damages</li> </ul>
<b>Extreme Heat</b> 	<ul style="list-style-type: none"> <li>Incorporate climate change factors into new site assessments and adopt new design standards considering the projected increase in extreme heat, such as increasing equipment rating to mitigate overloading</li> <li>Implement demand response programmes to manage peak load during extreme heat events</li> <li>Promote energy efficiency programmes to reduce overall demand during heat waves</li> </ul>
<b>Extreme Wind</b> 	<ul style="list-style-type: none"> <li>Strengthen Infrastructure such as enhancing tower safety factor to withstand extreme wind and switch from electric poles to underground cable</li> <li>Incorporate wind speed assessment into the design of the solar panel's mounting structure</li> <li>Develop and regularly update emergency response plans for extreme wind events</li> <li>Implement vegetation management by removal of trees and branches potentially affecting power lines</li> </ul>
<b>Soil Movement</b> 	<ul style="list-style-type: none"> <li>Implement slope reinforcement such as soil nailing, reinforced concrete retaining walls at high-risk transmission towers and access road to hydro power plant's intake or power houses</li> <li>Continuous assessment of the hydro power plant's dam and tunnel integrity leveraging Strong-Motion Accelerograph (SMA)</li> <li>Compliance with Malaysia Dam Safety Management Guidelines (MyDAMS), which includes surveillance, monitoring, inspection and safety review throughout a dam's life cycle</li> </ul>
<b>Coastal Inundation</b> 	<ul style="list-style-type: none"> <li>Implement routine maintenance of corroded assets, which includes regular inspections, repairs, and upgrades of materials that are resistant to saltwater corrosion</li> <li>Incorporate the Highest Astronomical Tide (HAT) during the design of seawater intake and seawater discharge points of thermal power plants</li> <li>Incorporate IP54-Water Ingress Protection Rating standard into the design of equipment to minimise impact from seawater intrusion</li> </ul>

## CLIMATE RESILIENCY

By executing these adaptation strategies, we have significantly lowered our risk exposures, ensuring the majority of our assets are resilient to climate impacts. Nevertheless, we are in the midst of reviewing our methodologies, with further enhancement planned for 2026.

Climate Hazard	Asset Type	% of Asset at Risk			
		High	Significant	Medium	Low
 <b>Flood</b>	<ul style="list-style-type: none"> <li>Substation (HV–High Voltage, MV–Medium Voltage, LV–Low Voltage)</li> <li>Power plants (coal, gas, hydro)</li> <li>Large Scale Solar (LSS)</li> <li><i>Kedai Tenaga</i></li> <li>Warehouses</li> </ul>	0.56%	0.82%	7.86%	90.76%
 <b>Extreme Heat</b>	<ul style="list-style-type: none"> <li>Substation (HV, MV &amp; LV)</li> <li>Power plants (coal, gas)</li> <li>Large Scale Solar (LSS)</li> <li><i>Kedai Tenaga</i></li> <li>Warehouse</li> </ul>	0.27%	0.04%	62.47%	37.23%
 <b>Extreme Wind</b>	<ul style="list-style-type: none"> <li>Substation (HV, MV &amp; LV)</li> <li>Power plants (coal, gas)</li> <li>Large Scale Solar (LSS)</li> <li><i>Kedai Tenaga</i></li> <li>Warehouse</li> <li>HV overhead lines (OHL)</li> </ul>	0.02%	0.01%	44.06%	55.92%
 <b>Coastal Inundation</b>	<ul style="list-style-type: none"> <li>Substation (HV, MV &amp; LV)</li> <li>Power plants (coal, gas, hydro)</li> <li>Large Scale Solar (LSS)</li> <li><i>Kedai Tenaga</i></li> <li>Warehouse</li> <li>HV overhead lines (OHL)</li> </ul>	0.00%	0.00%	8.86%	91.14%
 <b>Soil Movement</b>	<ul style="list-style-type: none"> <li>Substation (HV, MV &amp; LV)</li> <li>Power plants (coal, gas, hydro)</li> <li>Large Scale Solar (LSS)</li> <li><i>Kedai Tenaga</i></li> <li>Warehouse</li> <li>HV overhead lines (OHL)</li> </ul>	0.03%	0.08%	28.37%	71.52%

Our climate resilience strategies proved effective during the 2025 Northeast Monsoon, reducing water-related damage primarily at the LV substation assets. Timely execution of operational controls, such as immediate disconnection of the electricity supply and asset improvements, such as an elevated substation base, helped prevent flashover incidents. As a result, approximately 95% of flood-affected assets avoided severe damage from potential flashover. These preventive actions averted an estimated RM7.2 million in potential asset replacement costs.



#### EXTREME HEAT RISK ASSESSMENT FOR THERMAL POWER PLANTS AND LARGE SCALE SOLAR (LSS)

In 2025, TNB initiated an extreme heat risk assessment in light of potential impacts on our thermal power plants and Large Scale Solar (LSS) facilities, as research and global literature indicate that high temperatures can reduce operational efficiency.

We leveraged operational data from thermal plants and LSS installations to determine the correlation between ambient temperature and plant efficiency across different plant types, technologies, and locations. Analysis confirms that our operating units maintain high efficiency during extreme temperatures, with commercial impacts limited to a range of 0.05% to 0.79% of annual revenue. These insights affirm that while extreme heat is a recognised climate hazard, current operating configurations and asset performance remain resilient.

## CLIMATE RESILIENCY



### EARTHQUAKE RISK ASSESSMENT

In view of earthquake incidences between August and November 2025 in Johor, TNB has undertaken earthquake risk assessments across its assets in Peninsular Malaysia to better understand potential exposure to seismic events. The assessment evaluates regional seismic hazards and identifies potential impacts on key assets, including power plants, substations, overhead lines, office buildings and employee quarters.

The outcomes guide actions to strengthen system resilience, maintain a reliable electricity supply, and improve emergency response to enable the safe evacuation of employees and residents during earthquakes.

### BUILDING FLOOD-RESILIENT INFRASTRUCTURE ACROSS TNB'S DISTRIBUTION ASSETS

Malaysia is experiencing increasingly unpredictable flood patterns due to climate change, exposing substations and electrical infrastructure to greater risks of damage and disruption. Recognising this emerging climate reality, TNB has strengthened flood-mitigation and resilience planning across its distribution network to reduce risk, protect communities and enable faster service restoration following major flood events.

#### DATA-DRIVEN RISK ASSESSMENT AND FLOOD-PROOFING MEASURES

TNB identifies flood-exposed substations using Flood Hazard Maps (FHM) and Flood Inundation Maps (FIM) from the Department of Irrigation and Drainage Malaysia (JPS), supported by hydrological modelling and Geospatial Information System (GIS) elevation data. These inputs enable risk identification beyond historical events and support forward-looking flood risk assessments. Substations identified as vulnerable are tagged within the Supervisory Control and Data Acquisition (SCADA) system, the Advanced Distribution Management System (ADMS) and GIS platforms to support emergency planning and timely decision-making.

Based on these assessments, we implement flood-proofing measures across our network, including elevating switchgear and substation base levels, installing flood walls and flood gates, reconfiguring supply routes and relocating facilities where necessary. In high-risk areas, pole-mounted substations are deployed to keep critical equipment above potential flood levels, while new substations are sited outside flood-risk areas wherever feasible. Substations are prioritised based on historical flood depths, Average Recurrence Interval (ARI) analysis and potential impact severity. Where this cannot be avoided, full flood-protection features are incorporated from the outset. Cost-benefit assessments guide decisions to upgrade, protect or relocate installations.



Flood proofing measures are implemented to reduce asset exposure, minimise service disruption and support faster restoration following flood events.

#### OPERATIONAL PREPAREDNESS AND LONG-TERM RESILIENCE

Alongside infrastructure upgrades, we maintain operational readiness through continuous monitoring of rainfall, water levels and official alerts from relevant authorities, supported by rapid deployment capabilities involving mobile generators, portable gensets, floodlights, boats and high-clearance vehicles, with pre-arranged vendor assistance where necessary. Personal protective equipment and medical supplies are maintained across operating units, while HIRADC procedures guide safe execution during flood conditions. Preparedness is further reinforced through safety briefings, flood drills, emergency simulations and coordination under TNB's Crisis Command structure to support timely communication, decision-making and resource mobilisation during flood events.

Beyond immediate measures, we continue to strengthen long-term capabilities to manage flood risks via data-driven planning, infrastructure upgrades and operational readiness. These include multi-year planning for flood-mitigation capital expenditure (CAPEX), enhanced hydrological modelling and real-time data integration to improve risk forecasting and decision-making, continuous collaboration with TNB Research (TNBR), Universiti Tenaga Nasional (UNITEN), JPS, the National Disaster Management Agency (NADMA) and other relevant partners, as well as regular updates to standard operating procedures and guidelines to reflect evolving flood patterns and climate conditions.

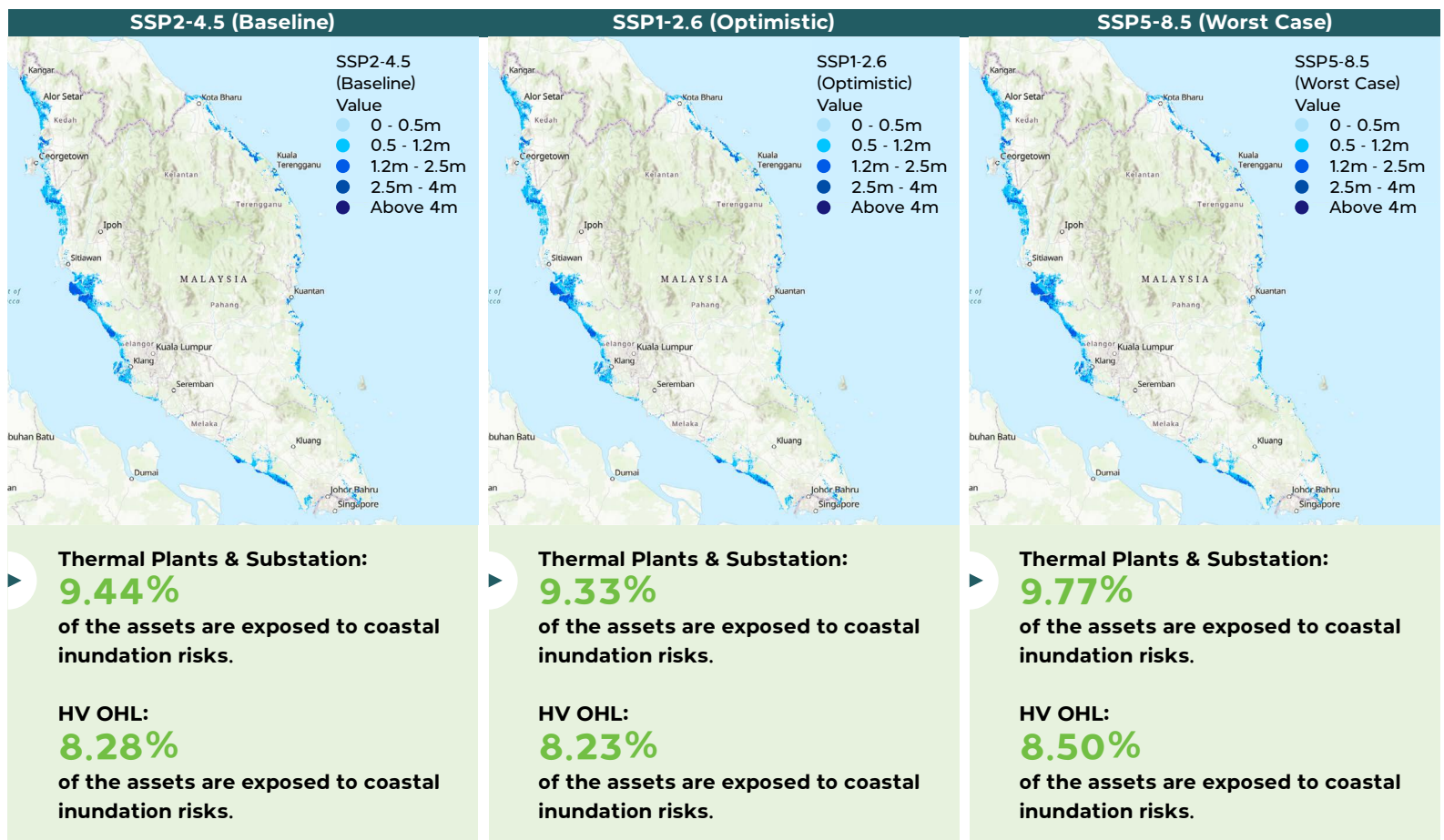
**CLIMATE RESILIENCY**

IFRS S2.22(a)(i)(b)(i)

TNB conducts analyses based on the Intergovernmental Panel on Climate Change (IPCC) climate scenarios, which are globally recognised as the authoritative source for climate science. We adopt the Shared Socio-economic Pathways, SSP2-4.5 scenario as the baseline for assessing potential climate impacts, with comparisons made against the best-case, SSP1-2.6, and worst-case, SSP5-8.5, scenarios as outlined below:

IPCC Scenario	IPCC SSP1-2.6: High Transition Risk with Low Physical Risk	IPCC SSP2-4.5 Moderate Transition and Physical Risk	IPCC SSP5-8.5 Low Transition Risk With High Physical Risk
<b>Description</b>	Represents a sustainable development pathway with strong global cooperation on climate policy.	Represents a "middle-of-the-road" socio-economic trajectory where historical trends continue. Climate policies improve gradually but are not aggressive enough to achieve Paris targets.	Represents a world with rapid economic growth driven by fossil fuels, minimal climate policy, and energy-intensive lifestyles.
<b>Temperature Increase</b>	1.5°C by 2100	2.6°C by 2100	4.8°C by 2100

TNB's asset exposure to coastal inundation was assessed across these three (3) scenarios using Geographic Information System (GIS) mapping. The scope of the assessment covers TNB thermal power plants, HV, MV and LV substations, and HV transmission lines located along the coasts of Peninsular Malaysia, to evaluate long-term risk exposure up to 2050. The key outcomes are summarised below:



## CLIMATE RESILIENCY

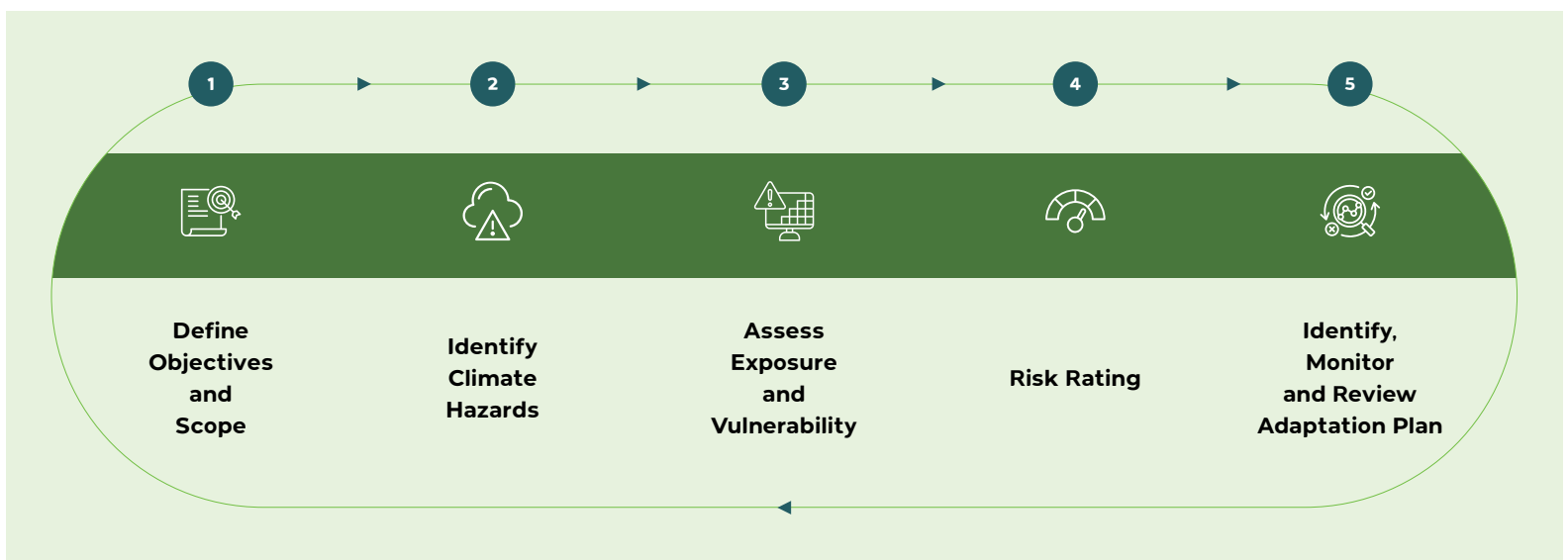
Asset exposure assessments across three (3) climate scenarios (SSP1-2.6, SSP2-4.5 and SSP5-8.5) indicate limited exposure to coastal inundation risks, with potential seawater flooding depths of 0.5 m to 2.5 m (very low to moderate) and no historical event was recorded for the climate hazard, thus no financially material impact identified at the portfolio level. Exposure remains below 10% for thermal power plants and substations, while transmission lines remain below 8.5% under worst-case conditions.

We are currently assessing asset exposure across the other four (4) climate hazards under the three (3) IPCC scenarios to test our resilience. While risk levels fluctuate across these scenarios, our strategy remains robust. We prioritise high-risk assets through phased adaptation, ensuring operational continuity and long-term resilience regardless of the climate trajectory.

### RISK MANAGEMENT

*IFRS S1.44(a)(v)(b); IFRS S2.25(a)(ii)(v)(b)*

TNB applies a structured approach to identifying, assessing and managing climate-related physical risks. Aligned with ISO 14091:2021, our TNB Climate Risk Assessment process, guided by the TNB Risk Management Framework, evaluates asset exposure and vulnerability to climate hazards to determine potential impacts across our operations.



Using GIS, we overlay our assets onto climate hazard maps developed with data from government agencies such as the Malaysian Meteorological Department and National Water Research Institute of Malaysia (NAHRIM) and the global climate model (GCM) datasets. This enables comprehensive assessment of asset risk exposure and enhances our understanding of potential climate-related impacts.

We also assess the level of asset vulnerability to determine the potential degree of loss should climate hazards occur. This assessment focuses on impacts to electricity supply reliability, asset performance efficiency and potential financial losses. The insights support the identification of cost-effective adaptation plans to strengthen long-term resilience.

Climate-physical risks are then prioritised based on hazard intensity, potential operational and financial impacts, as well as exposure and vulnerability considerations derived from historical events, adaptive capacity and asset location. High-risk assets are further evaluated for adaptation planning to strengthen resilience.

Beginning July 2025, together with our research arm, TNB Research Sdn. Bhd., we are strengthening our climate risk assessment approach to enhance the accuracy of climate-related insights. Leveraging the latest Global Climate Model datasets and IPCC climate scenarios, we are updating our climate hazard maps to better understand the exposure levels of our assets to the five (5) climate hazards. In parallel, we are improving our vulnerability assessment methodology to more accurately evaluate the sensitivity of our assets to the impact of climate hazards and adaptive capacity considerations. These enhancements support a robust and forward-looking approach to safeguarding our operations against climate risks.

## BUSINESS CONTINUITY MANAGEMENT

In the event of a disruption to our operations due to climate-related events, we are committed to preparing and responding effectively, guided by the TNB Business Continuity Management (BCM) Framework. Developed in alignment with ISO 22301, our BCM framework provides a structured approach to managing business continuity within the Group. This enables us to respond quickly and effectively while ensuring the continuity of our operations towards greater resiliency.

Across the Group, proactive pre-crisis preparedness is continually emphasised to minimise impact and ensure timely recovery. For instance, in preparation for floods during monsoon season, a range of crisis preparedness measures are proactively taken, including:



Our crisis management is led by the TNB Crisis Management Team, chaired by the President/Chief Executive Officer with the TNB top management, playing a vital role in ensuring efficient recovery and effective communication. At the operations level, crisis management and response teams activate respective BCM and ERP for immediate response, prioritising the safety of both our assets and those affected. We strategically plan and execute mass communication through channels such as the TNB Careline Facebook page. Additionally, targeted engagements with stakeholders are led by the General Manager (Retail & Stakeholders) at the state level to strengthen stakeholder confidence in the time of crisis.

## OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>CLIMATE-RELATED PHYSICAL RISKS</b>								
S2 - 29(c)	Amount of assets or business activities vulnerable to physical risks	Number	-	-	696	-	-	Vulnerability to physical risk is defined as assets that have exposure to high physical risk
	Percentage of assets or business activities vulnerable to physical risks	%	-	-	0.55	-	-	

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

**IFRS S2 MT 4 CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY**



**WHY IS IT IMPORTANT?**

TNB serves 10.66 million customers and is committed to delivering safe, reliable and high-quality electricity services alongside sustainable energy solutions. We continuously enhance customer experience across multiple touchpoints while ensuring an affordable and dependable supply that supports evolving needs. In 2025, we supported the Government’s electricity tariff restructuring, enabling domestic users in Peninsular Malaysia to benefit from fairer rates. This initiative also responds to the changing needs of customers, particularly amid the Middle East crisis, by fostering shared responsibility and encouraging more efficient and responsible electricity consumption.

We empower our customers through innovative and sustainable energy solutions including rooftop solar, energy storage, electric vehicle chargers and energy efficiency solutions. In support of national net zero agenda, we collaborate with the Government to promote and adopt renewable energy and energy efficiency initiatives through Solar Accelerated Transition Action Programme (Solar ATAP), Green Energy Tariff (GET) and Malaysia Renewable Energy Certificates (mRECs). Our digital platform, the myTNB app, connects us to 8.07 million customers, enhancing engagement and enabling smarter energy management. This focus on service excellence is reflected in our Customer Satisfaction Index (CSI) score of 90% in 2025, maintaining top-quartile performance for 10 consecutive years.

**OPPORTUNITY AND RISK**

IFRS S1.29(a)(b)(c)(d),30(a)(b)(c),31,32(a)(b),33(a), 34(a)(b),35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c),10(a)(b)(c)(d),11,12,13(a)(b),14(a)(b),15(a)(b),16(a)(b)(c)(d),17,18 (a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Provision of Sustainable Energy Solutions and Services				Risk: Ineffective Marketing Leading to Slow Uptake of Green Offerings			
<b>Description</b>	<p>TNB has the opportunity to enhance customer experience, energy efficiency and affordability by expanding access to sustainable energy solutions and digital services for its 10.66 million customers. Through current offerings such as rooftop solar, Renewable Energy Certificates (RECs), Green Energy Tariff (GET), energy efficiency and audit programmes, district cooling systems and the Virtual Energy Manager (VEM) platform, TNB empowers customers to reduce emissions, manage energy use more efficiently, lower energy costs and participate in the green transition.</p> <p>Building on these capabilities, TNB is exploring bundled solutions that combine solar, battery energy storage systems (BESS) and EV charging infrastructure, providing integrated, end-to-end clean energy options that deliver greater convenience, resilience, affordability and sustainability for its customers.</p> <p>Digital platforms like the myTNB app further empower users with real-time insights, personalised energy saving tips and easier access to green products and billing services, strengthening engagement and cost-effective energy management.</p>				<p>Effective marketing of TNB’s energy-efficient offerings such as rooftop solar, Renewable Energy Certificates (REC), the Green Electricity Tariff (GET), and solutions like Virtual Energy Manager (VEM) would drive wider adoption of renewable energy products, providing more affordable energy solutions, supporting the shift towards energy-efficient behaviors and ultimately enhancing overall customer experience.</p> <p>However, marketing efforts may not be impactful if customer needs and preferences are not well understood or if product value propositions are not communicated in a clear, compelling and customer-centric manner. Strong competition from other energy solution providers further increases the risk of customers choosing alternative offerings. Additionally, ineffective use of mass communication channels and digital platforms may limit TNB’s ability to engage diverse customer segments at scale.</p> <p>Weak or ineffective marketing may result in low customer uptake of green offerings, constraining TNB’s RE growth, limit potential revenue streams and undermine national energy transition efforts.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Expands TNB’s value chain beyond commodity electricity supply into integrated sustainability solutions (solar, BESS, EV infrastructure, RECs, GET, energy advisory and digital energy platforms).</li> <li>Strengthens customer engagement and cost efficiency through personalised digital services that support energy management and accelerate participation in the energy transition.</li> </ul>				<ul style="list-style-type: none"> <li>Impede TNB’s renewable energy growth targets and weaken its market competitiveness and brand positioning in energy solutions and services.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Drives prioritisation of customer-centric green products, digital platforms and targeted marketing investments to scale adoption.</li> <li>Guides development of bundled, end-to-end solutions to capture new growth pools across residential, commercial and industrial customer segments.</li> </ul>				<ul style="list-style-type: none"> <li>Leverage customer insights to refine value propositions and accelerate uptake of renewable energy solutions.</li> <li>Deploy targeted digital marketing and focused campaigns to drive adoption and strengthen customer engagement.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Unlocks medium to long-term revenue uplift from non-regulated energy solutions, improving portfolio diversification and margin resilience.</li> <li>Enhances cash flow stability through subscription-based digital services, energy advisory fees and increased customer retention from integrated offerings.</li> </ul>				<ul style="list-style-type: none"> <li>Lower-than-expected revenue from non-regulated businesses on energy solutions and services.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Revenue RM135.4 mil	Revenue RM50 mil – RM450 mil	Revenue RM50 mil – RM450 mil	Revenue >RM450 mil	Cost Increase RM34.7 mil	Unrealised Revenue RM50 mil – RM450 mil	Unrealised Revenue RM50 mil – RM450 mil	Unrealised Revenue RM50 mil – RM450 mil

## GOVERNANCE IN ACTION

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

The TNB Board and the TNB Board Sustainability and Risk Committee (BSRC) provide oversight by reviewing performance and integrating strategic decision-making with sustainability and risk management considerations, ensuring regulatory compliance and consistent high-quality service outcomes for customers.

At the Management level, the Group Executive Management Committee (GEMC), led by the President/Chief Executive Officer, provides clear direction to ensure effective operational execution and delivery of customer-centric energy solutions that respond to evolving customer needs and expectations.

Our commitment to delivering outstanding service is guided by our Customer Charter, which embeds customer satisfaction into our operations and clearly defines service commitments. These include reliable electricity supply, efficient installation and connection, timely communication on unavoidable service disruptions, transparent billing and responsive customer support. In line with the Guaranteed Service Level (GSL) and Minimum Service Level (MSL) standards set by the Energy Commission, we monitor performance and continuously improve to meet and exceed regulatory benchmarks, ensuring dependable, efficient and trusted energy services for our customers.

## STRATEGY

FRS S1.29,30,31,33(a)(b)(c); IFRS S2.14(a)(b)(c)

At TNB, we continue to offer various products and services to meet customers' evolving needs. These include infrastructure and digital platforms that empower customers to navigate challenges and adapt to change, ensuring no one is left behind.

### ENHANCING CUSTOMER EXPERIENCE

TNB's customer-centric approach delivers a top-rated experience to over 10.66 million customers across four (4) channels: Click, Call, Come Over and Go Over. Through innovative digital solutions such as the myTNB app, customers gain real-time insights into their energy consumption, supporting their energy efficiency goals and facilitating their transition towards renewable and smart energy choices. For customers who prefer face-to-face engagement, we continue to provide personalised assistance through appointments at our *Kedai Tenaga*. In addition, our 'phygital' *Kedai Tenaga* concept bridges the physical and digital worlds by guiding customers through their digital transition journey.

### DIGITALISING CUSTOMER SERVICES AND ENERGY EFFICIENCY

Digital transformation is one of our strategic enablers in our sustainability agenda, enhancing customer responsiveness and experience while driving energy efficiency solutions that support our long-term sustainability goals.

### myTNB PLATFORMS AS ONE-STOP DIGITAL SERVICE

We are committed to enhancing customer experience through innovation and digitalisation. Our myTNB app and portal digital platforms allow customers to manage service requests, receive real-time updates, explore offerings aligned with their preferences and adopt sustainable energy practices. Both the platforms enable consumers to track consumption patterns and usage trends, identify high-energy activities and adjust consumption behaviour. In 2025, over 8.07 million subscribers signed up for the service, an increase over 11% compared to the previous financial year.

### DIGITAL BILLING OPTION FOR CUSTOMERS

We advocate sustainable practices by offering digital billing for customers who prefer e-bills over traditional paper bills through multiple digital platforms via myTNB app, email and WhatsApp. This initiative has significantly reduced paper usage, resource consumption and the associated carbon footprint. In 2025, over 4.4 million customers were on digital billing, preserving approximately 110,500 trees and reducing 2,431 tCO<sub>2</sub>e annually, a two-fold increase compared to the previous financial year. By the first quarter of 2026, the digital billing option has reached 5.1 million customers, equivalent to saving close to 128,000 trees and reducing 2,816 tCO<sub>2</sub>e.

**NET ZERO 2050**

**myTNB**  
is here for you!

Your account information and various TNB services are available at your fingertips with the myTNB App & Portal. Anytime, anywhere!

Enjoy the exciting features!

- Switch to e-Bill via myTNB today
- Monitor and compare your energy consumption\*
- Manage energy consumption with Energy Budgets\*
- Submit Feedback and other concerns swiftly

\*Features available with smart meter

More convenience on the myTNB Portal!

- Apply for a new electricity supply.
- Change of Tenancy.
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## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

### myTNBIZ AS DIGITAL HUB FOR BUSINESS CUSTOMERS

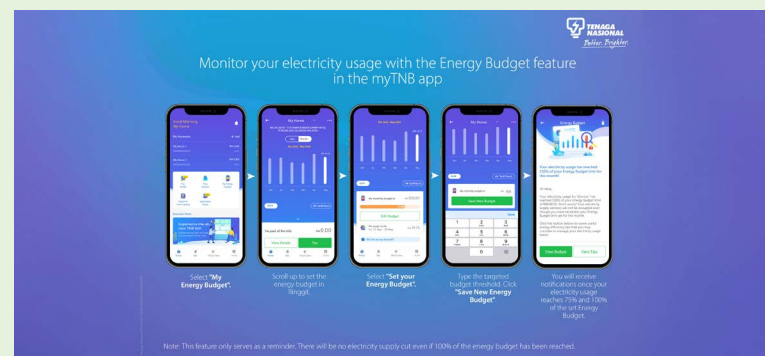
To provide seamless customer experience, myTNBiz provides payment solutions that include centralising billing, payments and e-Invoice. In 2025, myTNBiz has 242,285 connected customer accounts registered, leading to better operational efficiency and compliance.

### myTNB AND MYDIGITAL ID INTEGRATION

The integration of myTNB with MyDigital ID strengthen digital security whilst providing customers with peace of mind and convenience. In 2025, adoption was highly encouraging, with more than 109,266 unique users using MyDigital ID as their primary login method and reporting improved trust, convenience and overall user experience.

### myTNB ENERGY BUDGET

The myTNB Energy Budget feature enables customers with smart meters to set consumption thresholds and receive alerts, promoting more efficient energy use. In 2025, approximately 2.6 million customers adopted this feature, resulting in a reduction of 106 GWh in electricity consumption for that month, equivalent to avoiding 74,293 mtCO<sub>2</sub>e. The number of Energy Budget subscribers increased by about 83% compared to the previous financial year.



### TIME-OF-USE TARIFF FOR DOMESTIC AND NON-DOMESTIC LOW VOLTAGE CUSTOMERS

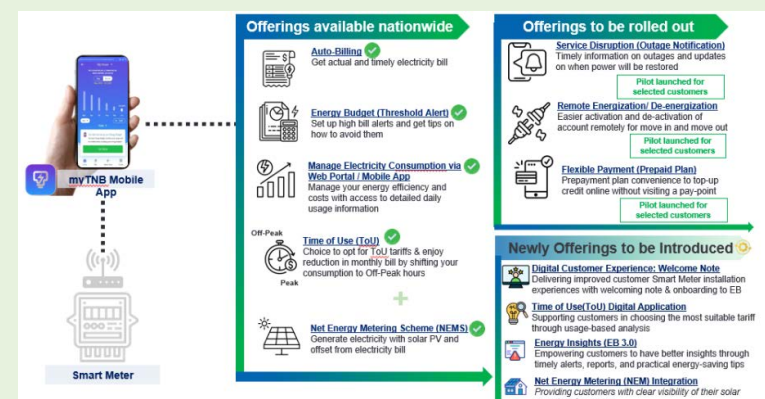
Implementing effective demand management measures and fostering energy efficiency practices are vital in helping customers to adapt to change. These efforts can be achieved through a shared commitment to promote responsible energy consumption, while supporting energy affordability, reliability and long-term resilience. In 2025, TNB introduced a Time-of-Use (ToU) Tariff that encourages Domestic and Non-Domestic Low Voltage Customers to change their electricity consumption pattern from peak period to off-peak period. From 1 July 2025, all customers with the General Tariff may consider switching to the ToU Tariff to enjoy a lower rate during Off-Peak periods. By the end of 2025, about 102,000 customers have actively benefitted from this scheme. We will continue to work with the Government and regulators to further explore sustainable solutions for our customers in pursuit of a Just Transition.



### INTEGRATED SMART SYSTEMS

To empower customers to understand and manage their electricity consumption, we have deployed the Advanced Metering Infrastructure (AMI), an integrated system of smart meters, communication networks and data management systems. Through smart meters, customers can benefit from the various digital tools via the myTNB digital platforms, including the ToU and myTNB Energy Budget. By providing improved data visibility, the integrated systems reduce overall reliance on estimation and support more informed and engaged energy community, while complementing TNB's broader efforts in grid modernisation and the energy transition.

In 2025, 1.46 million participating accounts have recorded a reduction in electricity usage, with 106 GWh of electricity consumption reduced in a single month and an estimated avoidance of 82,044 tCO<sub>2</sub>e, equivalent to approximately 57 kgCO<sub>2</sub>e per account.



## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

**EMPOWERING CUSTOMERS THROUGH ENERGY INNOVATIONS AND SUSTAINABLE SOLUTIONS**

Amid the rapidly changing energy landscape, customers are increasingly motivated to adopt sustainable energy solutions and enhance their energy efficiency. As part of our efforts to support customers' transition to low-carbon consumption, we strategically position our product and services portfolio to deliver green and efficient solutions aligned with evolving customer demand and the broader energy transition through our subsidiaries. Our innovative product packaging and targeted marketing help to ease customers' transition towards cleaner power solutions and achieving better energy savings.

**PROMOTING SOLAR PV ROOFTOP AND ENERGY STORAGE**

Our subsidiary, GSPARX Sdn. Bhd. (GSPARX), empowers consumers by enabling residential, commercial and industrial customers to adopt solar PV and Community Energy Storage Systems (CESS). Their services include end-to-end rooftop solar solutions, consultation, design, installation, monitoring and maintenance of solar PV systems. Serving as an investor/developer in solar PV systems for customers, GSPARX helps to scale clean energy projects and accelerate solar adoption in Malaysia through collaboration with property developers and technology providers.

A key partnership is with Sime Darby Property to develop solar-powered homes at Elmina Ilham Residence, where each house is equipped with a pre-installed rooftop solar system. To ensure a stable and reliable electricity supply for this solar-enabled community, TNB has supported the initiative by installing three Community Energy Storage Systems (CESS) at the Elmina Ilham substations. These systems help to regulate voltage levels when solar energy generation exceeds the community's electricity demand. This approach can be replicated in other townships, contributing to the development of more resilient and climate-adaptive communities across Malaysia.

Since 2019, a total of 216 MWp rooftop solar PV have been installed at residential, government buildings, universities, commercial and industrial segments.

**ENABLING CUSTOMER-CENTRIC ENERGY SOLUTIONS AND SERVICES**

TNBX Sdn. Bhd. (TNBX) delivers customer-centric energy solutions and services that support sustainable energy adoption and efficient energy use amid an evolving energy landscape. It enables customers to access renewable energy, optimise consumption and manage energy-related risks through diverse offerings. These include the Malaysia Renewable Energy Certificates (mRECs) platform and trading support, beyond-the-meter renewable and energy efficiency solutions, as well as Smart-City and Smart Building solutions.

Complementing GSPARX's rooftop solar offerings is TNBX's SuriaShield, a residential solar PV insurance plan, which covers restoration services and compensation for lost savings during breakdowns. In 2025, 745 consumers subscribed to the insurance plan through TNBX in 2025.

## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

Other services include:

### MARKETING SUPPLY AGREEMENT FOR RENEWABLE ENERGY (SARE) SOLUTIONS

One of TNBX’s major initiatives is the Supply Agreement for Renewable Energy (SARE), which operates as a tripartite agreement between TNB, TNB Customer and Registered Solar PV Investors (RPVIs), offering single convergence billing for utility and solar. This flexible model removes the burden of heavy upfront investment in rooftop solar solutions, making solar adoption far more accessible for commercial, industrial and government sectors. The objective is to make solar energy affordable, simple and low risk for customers pursuing greener, more efficient operations.

Under the tripartite, TNBX successfully secured a total capacity of 425 MWp across 1,468 Solar PV projects in 2025. By offering seamless integrated billing and contracting services, SARE has attracted 129 Solar PV investors to adopt this solution for their projects.

### ELECTRIC VEHICLE (EV) CHARGING SOLUTIONS

As the nation’s electricity utility, we recognise our central role in enabling the transition to EVs by supporting the large-scale deployment of EV charging infrastructure while maintaining system reliability. Our efforts to expand both public and private charging infrastructure will enhance interstate travel while reducing range anxiety and reliability concerns among EV users.

TNB Electron operated by TNBX provide convenient and accessible EV charging infrastructure, as they can be easily located via the GO-TO-U mobile app, which had onboarded 21,551 users through the payment terminal and app as of December 2025.

Cumulatively, 256 charging points had been installed as of 2025, with a further 96 in progress, including 38 under construction. In 2026, TNB targets the deployment of 250 charging points as part of the nationwide expansion of its EV charging network, including into Sabah.



EV charging points will be expanded across Peninsular Malaysia and into Sabah, with a focus on highways, major trunk roads, commercial and public locations to support interstate travel.

### VIRTUAL ENERGY MANAGER (VEM)











Since 2024, the Virtual Energy Manager (VEM) has supported organisations, including factories, data centres, hotels and office buildings, by providing greater visibility of their electricity consumption, consolidating energy data across multiple sites and strengthening Scope 2 emissions reporting. Beyond monitoring and reporting, VEM empowers customers to derive actionable insights by identifying efficiency opportunities, optimising consumption patterns, reducing electricity costs and supporting their broader sustainability and carbon management goals.

Through digitalisation and data-driven energy management, VEM addresses the energy trilemma by contributing towards:

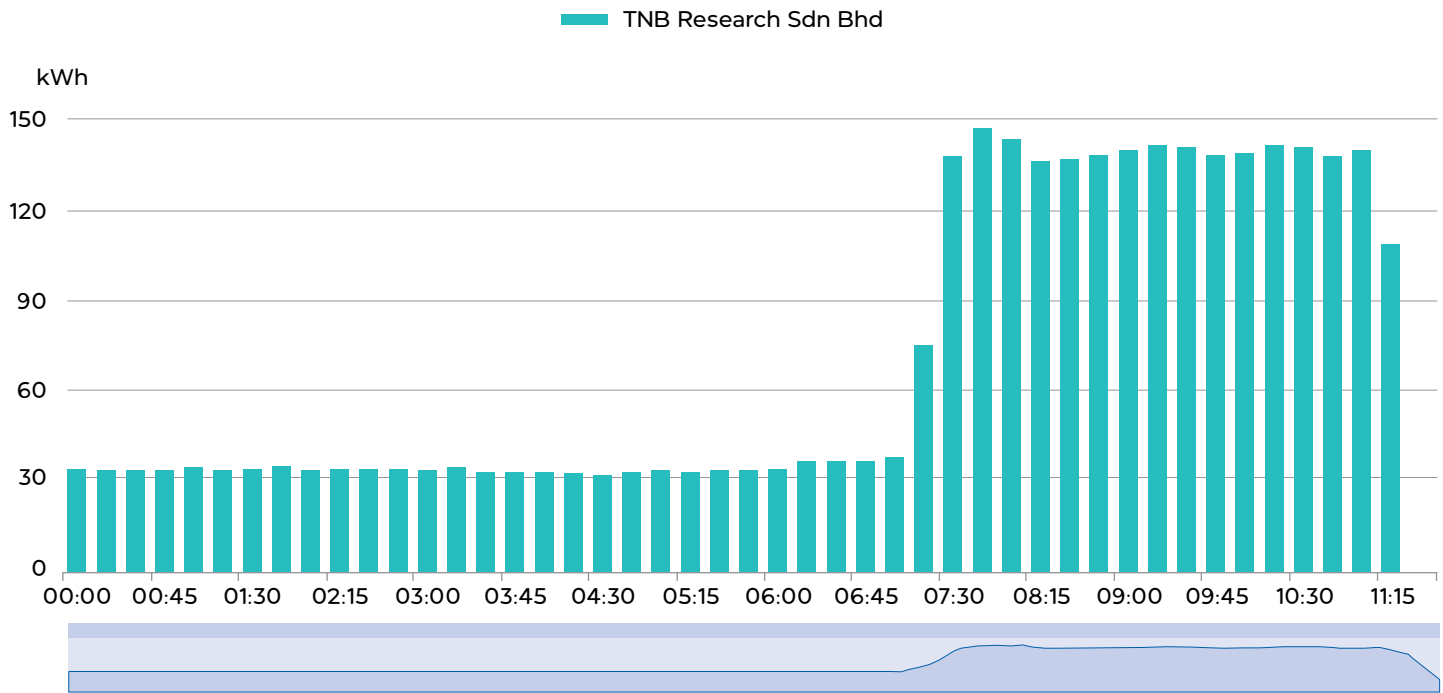
<b>Energy Security</b>	Enabling smarter demand management and more efficient electricity utilisation, reducing unnecessary energy consumption and pressure on the grid
<b>Energy Equity and Affordability</b>	Helping customers optimise operational energy costs through data-driven decision-making and efficiency improvements
<b>Environmental Sustainability</b>	Supporting reduced energy intensity, lower carbon emissions and improved Scope 2 emissions management through enhanced visibility and optimisation

CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

By empowering customers with greater visibility and control over their energy usage, VEM strengthens TNB's broader ambition to drive smarter, cleaner and more sustainable energy consumption across Malaysia's energy ecosystem. Going forward, we intend to evolve our VEM from enhanced monitoring and customer engagement capabilities into intelligent microgrid optimisation, localised P2P energy trading and large-scale energy aggregation. By 2030, we aim to deliver a fully integrated AI-powered energy platform enabling predictive management, virtual power plant (VPP) operations and smart energy trading across the ecosystem.

<b>TREES PLANTED</b> <b>0.00eq</b> 	<b>VEM DEVICES</b> <b>Total: 1</b>		Online: <b>1</b>	Offline: <b>0</b>
<b>CARBON FOOTPRINT</b> <b>143.82 tCO<sub>2</sub></b> 	<b>TODAY'S ENERGY</b> <b>3,212.40 kWh</b> 	<b>CURRENT DEMAND</b> <b>561.52 kW</b> 		
<b>YTD CARBON REDUCTION</b> <b>-4,346.33 kgCO<sub>2</sub></b> 	<b>MONTHLY ENERGY</b> <b>201,885.00 kWh</b> 	<b>MAXIMUM DEMAND</b> <b>720.00 kW</b> 		
<b>REDUCTION VS LAST MONTH</b> <b>-21,336.11 kgCO<sub>2</sub></b> 	<b>EST. MONTH COST</b> <b>RM130,665.81</b> 	<b>LAST UPDATE</b> <b>2026-04-30 1</b> 		

Today Energy Trending



The VEM dashboard provides customers with insights into their energy consumption and carbon footprint, enabling more informed and efficient energy use.

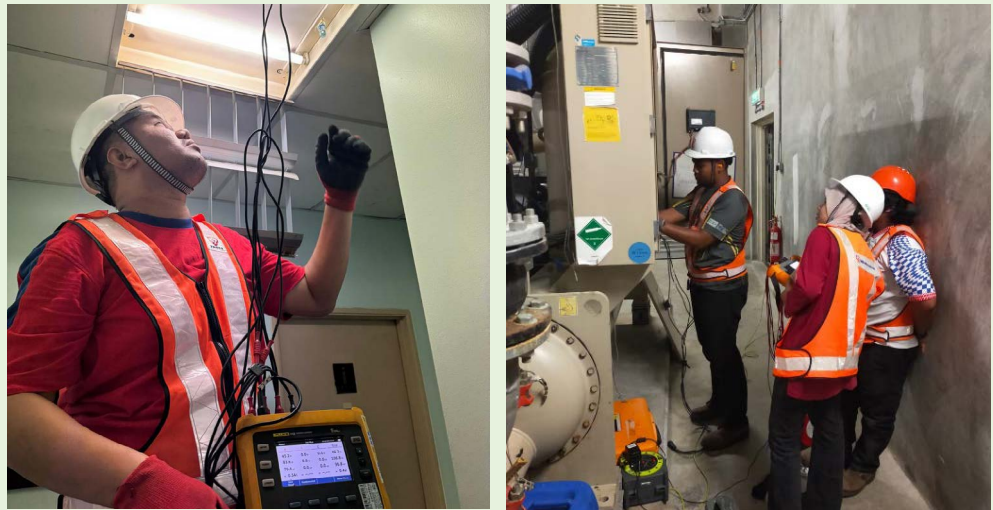
## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

### ADVANCING ENERGY EFFICIENCY AND SYSTEM PERFORMANCE

TNB's dedicated Energy Services Company (ESCO), TNBES, delivers customer-focused energy efficiency and engineering solutions that support cost optimisation, system reliability and sustainability. Through integrated offerings, TNBES enables customers to improve energy performance, reduce emissions and enhance operational efficiency across commercial, industrial and institutional sectors.

#### ENERGY EFFICIENCY (EE) SOLUTIONS

TNBES conducts comprehensive energy audits, including Investment Grade Audits with return-on-investment assessments, to identify energy conservation opportunities and improve system efficiency. These services are complemented by Registered Energy Manager (REM) services, which support customers in understanding energy consumption patterns, implementing optimisation measures and ensuring compliance with regulatory requirements such as the Energy Efficiency and Conservation Act (EECA).



*Since 2015, TNBES has delivered more than 30 energy audit projects across various sectors, including oil and gas, banking, telecommunications, retail and institutional facilities, serving clients such as PETRONAS, CIMB, Celcom and UPM.*

#### FINANCING AND IMPLEMENTATION (ESCO MODEL)

TNBES' Energy Performance Contracting (EPC) solutions utilise a zero-capex model, enabling customers to implement energy efficiency initiatives without upfront investment. With capital expenditure undertaken by TNBES and repaid through verified energy savings, EPC ensures measurable performance outcomes while reducing financial barriers to adoption. This model supports customers in improving energy efficiency, lowering operating costs and achieving sustainability targets.

In 2025, TNBES implemented a total of seven (7) EPC projects, with three (3) completed and four (4) ongoing across commercial and institutional sectors. Notable projects include UPM, Celcom Exchange and Aman Central Mall. For the Aman Central Mall project, annual energy savings of approximately 2.33 million kWh were achieved, translating into cost savings of RM787,585 per year.

#### ENGINEERING AND POWER SOLUTIONS

The Power System Studies (PSS) and Power Quality (PQ) solutions can enhance system reliability, stability and operational performance. These services assess potential risks such as voltage instability, system overloading and fault conditions, enabling early identification and mitigation before operations.

The PSS supports the integration of renewable energy, Battery Energy Storage Systems (BESS) and large industrial loads while maintaining grid stability and compliance. Through detailed simulations and technical assessments, TNBES helps optimise network performance, reduce operational risks and ensure secure and efficient electricity supply.

#### INTEGRATED FACILITY AND SMART INFRASTRUCTURE SOLUTIONS

TNBES delivers integrated solutions including facility management, smart and energy-efficient lighting systems and engineering consultancy services to optimise infrastructure performance. These offerings support customers in enhancing operational efficiency, improving asset performance and achieving long-term energy savings.

#### SUSTAINABILITY AND CARBON MANAGEMENT

TNBES supports customers in advancing sustainability and carbon management through energy efficiency programmes aligned with ESG goals. By reducing energy consumption and emissions, these solutions contribute to improved environmental performance and compliance with sustainability reporting requirements.

## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

Moving forward, TNBES is expected to expand its role in supporting Malaysia's energy transition by scaling its ESCO and EPC model to extend zero-capex energy efficiency solutions to a wider base of commercial and industrial customers. This will include enhancing integrated solutions by combining energy audits, optimisation and long-term performance monitoring, while expanding its engineering and smart infrastructure services across smart facilities, lighting and system optimisation. These efforts are complemented by a continued focus on driving ESG and carbon reduction initiatives, enabling customers to achieve sustainability targets through measurable energy efficiency outcomes. In addition, TNBES will work closely with the relevant regulators and stakeholders to support the implementation of the EECA.

## FACILITATING GREEN SOLUTIONS INITIATED BY THE GOVERNMENT

As the national power utility, we play a key role in facilitating the implementation of solutions provided by the Government to promote energy transition and energy efficiency for our customers. These include:

<p><b>Solutions to offset Scope 2 Emissions through Green Electricity Tariff (GET) and Malaysia Renewable Energy Certificates (mRECs)</b></p>	<p>▶ The Green Electricity Tariff (GET) and Malaysia Renewable Energy Certificates (mRECs) provide customers with a practical way to support renewable energy development and offset their Scope 2 emissions by purchasing green electricity without the need to install rooftop solar or other on-site renewable energy system.</p> <p>In 2025, a total of 1,580 customers procured 3,925 GWh out of the 6,600 GWh quota available of renewable-backed electricity through GET, reflecting growing confidence and interest in credible green-power options.</p>
<p><b>Malaysia Green Attribute Trading System (mGATS)</b></p>	<p>▶ The Malaysia Green Attribute Trading System (mGATS), serves as the central digital platform for trading, tracking and redeeming Malaysia Renewable Energy Certificates (mRECs).</p>
<p><b>Net Energy Metering (NEM)</b></p>	<p>▶ NEM allows customers to export excess energy produced from their solar PV systems to the national grid. NEM 3.0 has been replaced with the Solar Accelerated Transition Action Programme (Solar ATAP). In 2025, 99,729 NEM participants made up a total installed capacity of around 1.9 GWp.</p>
<p><b>Solar Accelerated Transition Action Programme (Solar ATAP)</b></p>	<p>▶ Solar ATAP is Malaysia's new rooftop solar policy providing customers to export excess solar power to the grid at the energy rate of System Marginal Price (SMP). Customers are able to install solar panels up to 100% of their maximum demand to encourage larger system adoption. Solar ATAP scheme was announced in 2025 to replace NEM 3.0.</p>
<p><b>Solar for <i>Rakyat</i> Incentive Scheme (SolaRIS)</b></p>	<p>▶ The Solar for <i>Rakyat</i> Incentive Scheme (SolaRIS) encourages residential customers to embrace clean energy through the installation of solar photovoltaic (PV) systems at their homes. Under this initiative, eligible customers who submit their NEM <i>Rakyat</i> applications to the Sustainable Energy Development Authority (SEDA) from 1 April 2024 until 30 April 2025 and successfully commission their solar PV installations will receive a cash rebate of up to RM4,000.</p> <p>In 2025, TNB has successfully disbursed RM179.3 million of SolaRIS rebate benefitting 44,899 customers.</p>

## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

### ACCELERATING DATA CENTRE GROWTH THROUGH THE GREEN LANE PATHWAY

As economies become increasingly digital, data centres have evolved to be critical infrastructure, underpinning financial services, e-commerce, government systems and smart technologies. The data centre sector experienced expansion in 2025, with a maximum demand of 2.6 GW.

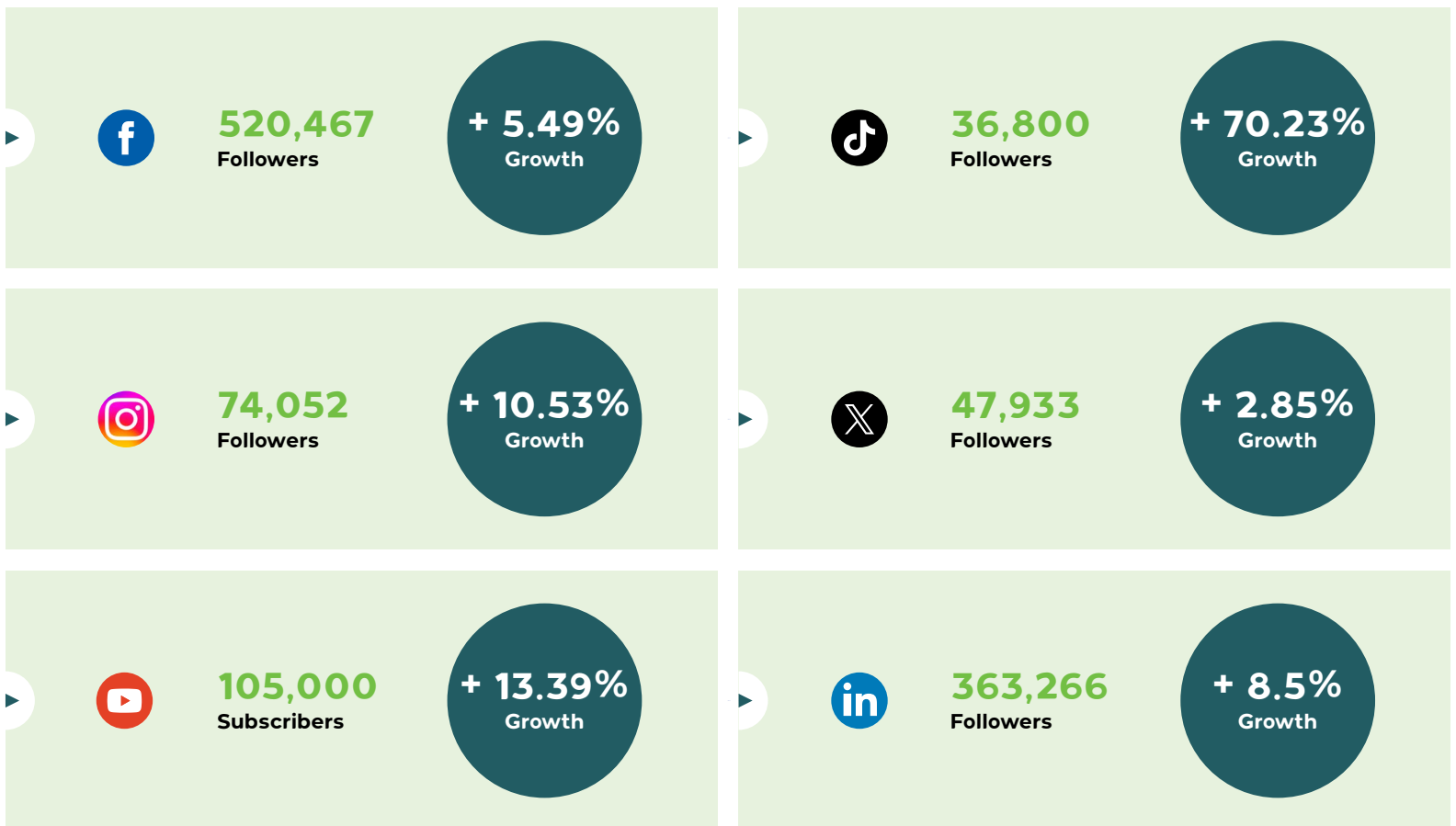
To support and accelerate growth, data centre operators are prioritising speed to market, scalability and energy efficiency, with strong demand for resilient grid infrastructure, fast-track power connections and access to renewable energy. In response, TNB introduced the Green Lane Pathway initiative that significantly streamlines the grid connection process, enabling electricity supply within as little as 12 months and up to three (3) times faster than the conventional 36 to 48-month timeline. This strategic approach reduces time-to-market, enhances customer experience and supports rapid deployment of data centre operations.

Cumulatively, 35 data centres have been commissioned as of December 2025. A key milestone was the signing of the Heads of Terms for a Bilateral Energy Supply Agreement with DayOne Data Center to supply 500 MWac of renewable energy. This reinforces TNB's role in enabling sustainable data centre growth and advancing Malaysia's transition towards a low-carbon digital economy.

### CUSTOMER ENGAGEMENT THROUGH SOCIAL MEDIA PLATFORMS

Our digital presence on social media platforms strengthens our engagement with customers. It helps us to proactively manage communication with customers and accelerate the adoption of sustainable and energy-efficient practices while mitigating reputational and compliance risks.

In 2025, we reached more than 1.2 million social media followers and more than 207.1 million pieces of feedback, reflecting an 8.7% increase in overall followership on six (6) channels (Facebook, X, Instagram, TikTok, YouTube and LinkedIn). TNB received around 81% positive and neutral sentiment across the social media platforms.



CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

**ENHANCING CUSTOMER SATISFACTION**

We are committed to delivering a reliable electricity supply to our customers, meeting the Minimum Service Level (MSL) set by the Energy Commission. Guided by our Voice of Customer (VOC), we systematically capture and analyse customer insights to inform decision-making, strengthen service delivery and drive continuous improvement, ensuring that every customer interaction is reliable, responsive and aligned with evolving customer needs.

During the year, we resolved 99.0% of enquiries and 98.1% of customer complaints, reflecting our commitment to delivering a reliable power supply.

**Number of Customers Subscribed to myTNB**



**Customer Experience Index (%)**



**RISK MANAGEMENT**

*IFRS 5.1.43(a)(b), 44(a)(b)(c); IFRS 5.2.24, 25(a)(b)(c)*

Effective marketing of the Group's energy-efficient offerings such as rooftop solar, REC, GET and solutions like VEM, alongside TNBES' energy audit, energy efficiency consultation, Power System Study and Power Quality assessment are critical to reaching TNB's 10.66 million customers. This approach would drive wider adoption of renewable energy products, providing more affordable energy solutions, supporting the shift toward energy-efficient behaviors and ultimately enhancing overall customer experience.

However, marketing efforts may not be impactful if customer needs and preferences are not well understood or if product value propositions are not communicated in a clear, compelling and customer-centric manner. Strong competition from other energy solution providers further increases the risk of customers choosing alternative offerings. Additionally, ineffective use of mass communication channels and digital platforms may limit TNB's ability to engage diverse customer segments at scale.

TNB is mitigating the risk by integrating customer analytics, product design and marketing execution. Customer values, needs and feedback are analysed to derive valuable insights enabling the creation of compelling, data-driven marketing strategies related to green products and services.

Risk monitoring and effectiveness of mitigation measures are supported through the ongoing tracking of key performance and risk indicators, including:

<p><b>1</b></p> <p><b>Adoption Rates of Green Products and Services by the Target Customers</b></p>	<p><b>2</b></p> <p><b>Conversion Rates From Marketing Campaigns to Actual Sales and Subscriptions</b></p>	<p><b>3</b></p> <p><b>Metrics on Customer Satisfaction, Measured Through Surveys and Engagements</b></p>	<p><b>4</b></p> <p><b>Customer Sentiments on Digital Channels</b></p>
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**With these measures, we aim to optimise market share and accentuate our presence in the green energy market.**

## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

## OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>CUSTOMER ACCOUNTS</b>								
<b>Number of Residential, Commercial, Industrial and Institutional Customer Accounts</b>								
IF-EU-000.A	<b>Residential</b>	<b>Number</b>	<b>8,910,066</b>	<b>9,143,457</b>	<b>9,368,707</b>	-	-	
G4-EU3	Peninsular Malaysia	Number	8,335,248	8,554,220	8,766,538	-	-	
	Sabah	Number	574,782	589,237	602,169	-	-	
	<b>Commercial</b>	<b>Number</b>	<b>1,796,239</b>	<b>1,832,642</b>	<b>1,862,093</b>	-	-	
	Peninsular Malaysia	Number	1,688,615	1,721,968	1,748,735	-	-	
	Sabah	Number	107,624	110,674	113,358	-	-	
	<b>Industrial</b>	<b>Number</b>	<b>36,051</b>	<b>36,572</b>	<b>36,582</b>	-	-	
	Peninsular Malaysia	Number	34,390	34,834	34,841	-	-	
	Sabah	Number	1,661	1,738	1,741	-	-	
	<b>Others</b>	<b>Number</b>	<b>110,445</b>	<b>98,658</b>	<b>112,642</b>	-	-	
	Peninsular Malaysia	Number	103,668	91,864	105,841	-	-	
	Sabah	Number	6,777	6,794	6,801	-	-	
	<b>Total</b>	<b>Number</b>	<b>10,852,801</b>	<b>11,111,329</b>	<b>11,380,024</b>	-	-	
<b>Total Electricity Delivered to Residential, Commercial, Industrial and Institutional Customer Accounts</b>								
IF-EU-000.B	<b>Residential</b>	<b>MWh</b>	<b>35,555,221.60</b>	<b>38,682,740.25</b>	<b>38,735,998.73</b>	-	-	
G4-EU3	Peninsular Malaysia	MWh	33,325,441.00	36,293,584.00	36,713,306.52	-	-	
	Sabah	MWh	2,229,780.60	2,389,156.25	2,022,692.21	-	-	
	<b>Commercial</b>	<b>MWh</b>	<b>45,092,218.50</b>	<b>48,693,783.64</b>	<b>52,385,318.11</b>	-	-	
	Peninsular Malaysia	MWh	42,402,041.00	45,807,508.91	49,945,598.93	-	-	
	Sabah	MWh	2,690,117.50	2,886,274.73	2,439,719.18	-	-	
	<b>Industrial</b>	<b>MWh</b>	<b>45,648,645.68</b>	<b>46,585,411.95</b>	<b>44,489,456.80</b>	-	-	
	Peninsular Malaysia	MWh	44,478,159.00	45,272,778.00	43,343,754.57	-	-	
	Sabah	MWh	1,170,486.68	1,312,633.95	1,145,702.23	-	-	
	<b>Others</b>	<b>MWh</b>	<b>2,572,516.45</b>	<b>2,748,318.81</b>	<b>3,409,519.28</b>	-	-	
	Peninsular Malaysia	MWh	2,493,161.00	2,673,711.00	3,347,662.43	-	-	
	Sabah	MWh	79,355.45	74,607.81	61,856.85	-	-	
	<b>Total</b>	<b>MWh</b>	<b>128,868,602.23<sup>1</sup></b>	<b>136,710,254.65<sup>1</sup></b>	<b>139,020,292.92</b>	-	-	
<b>Energy Solution Adoption by Customers</b>								
<b>Rooftop Solar (GSPARX)</b>								
N/A	Rooftop solar capacity	MWp	105	504	216	-	-	
	Total number of customers subscribed	Number	1,155	3,130	2,482	-	-	

## CUSTOMER EXPERIENCE AND ENERGY EFFICIENCY

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>CUSTOMER ACCOUNTS</b>								
<b>Green Electricity Tariff (GET)</b>								
N/A	Number of customer subscribed per year	Number	2,753	1,403	1,580	-	-	
N/A	Total annual consumption	MWh	4,181	2,513,000	3,935,000	-	-	
<b>Net Energy Metering (NEM) connected TNB Peninsular Grid</b>								
N/A	Cumulative customers who are producer	Number	24,664	55,831	99,729	-	-	
N/A	Total Installed Capacity	MW	970.5	1,467.5	1,900.0	-	-	
<b>Number of Customer Subscribed to myTNB</b>								
N/A	Number of customer subscribed to myTNB	Number	6,742,081	7,264,768	8,070,368	-	-	
<b>Results of Surveys Measuring Customer Satisfaction</b>								
N/A	Customer Satisfaction Index	%	88	87	90	88	90	
	Customer Experience Index	%	95	95	95	95	95	
	Complaints Resolved	%	99.7	99.5	98.1	100	100	
<b>Total Number of Substantiated Complaints Received Concerning Breaches of Customer Privacy</b>								
Bursa C8(a) [Data Privacy and Security]	Total number of customer privacy complaints	Number	0	0	0	Zero complaints	Zero complaints	
GRI 418-1								

<sup>1</sup> Updated calculated number

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

**IFRS S2 MT 5 WATER AND BIODIVERSITY**



**WHY IS IT IMPORTANT?**

As a responsible energy provider, we recognise the importance of protecting water resources and biodiversity to ensure resilient ecosystems and sustainable operations. These ecosystems are critical in supporting climate resilience, operational continuity and long-term environmental sustainability. Within TNB, water usage is concentrated at our thermal power plant operations, where large volumes of water are required primarily for cooling systems. Through efficient cooling management and responsible operational controls, nearly 99% of the water utilised is treated and safely returned to the environment, demonstrating our continued commitment to sustainable water stewardship and the preservation of surrounding ecosystems.

We also recognise the critical role biodiversity plays in maintaining ecosystem balance and delivering essential services such as water regulation, soil protection, carbon sequestration and climate resilience. Guided by our Biodiversity Framework, we continue to strengthen efforts to minimise biodiversity impacts, enhance ecosystem resilience and uphold responsible environmental management practices aligned with leading sustainability frameworks. Through this integrated approach, we reinforce our leadership as a responsible energy provider, balancing power generation demands with the sustainable management of water resources.

**OPPORTUNITY AND RISK**

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18 (a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Optimising Water Use and Environmental Stewardship in Power Operations				Risk: Challenges in Executing Water Optimisation Initiatives in Power Operations			
<b>Description</b>	<p>TNB has the opportunity to enhance water efficiency and environmental stewardship across power operations by deploying optimisation technologies that reduce freshwater withdrawal, improve recycling and strengthen resilience to water scarcity risks. As climate change intensifies variability in rainfall patterns and water availability, proactive water management becomes increasingly critical to sustaining reliable power generation and safeguarding asset performance.</p> <p>The implementation of zero-leakage valves in <i>Stesen Janakuasa Perai (SJP)</i> and <i>Sultan Ibrahim Power Plant (SIPP)</i> has demonstrated tangible reductions in water consumption while maintaining stable power output. These initiatives mitigate environmental impacts and reduce exposure to climate-related water stress. The programme can be progressively extended across other TNB's thermal assets to enhance long-term water security.</p>				<p>Water is a critical operational and cost factor for TNB power plants, which rely on it for cooling, steam generation and other operational processes. Despite this high usage, nearly 99% of the water is treated and safely returned to the environment.</p> <p>Ineffective implementation of water optimisation initiatives, such as recycling, reuse and efficient process controls could stem from outdated technologies, inadequate monitoring or inefficient water processing systems or equipment.</p> <p>Such shortcomings can lead to excessive water withdrawal, higher operational costs and increased regulatory or environmental exposure. Hence, TNB actively monitors water usage, invests in efficiency technologies and enforces robust water management practices to optimise water consumption and control costs while meeting environmental standards.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens operational sustainability and water security across generation assets by reducing dependence on freshwater resources and exposure to water scarcity disruptions.</li> <li>Enhances plant reliability and regulatory compliance in water stress regions, supporting long-term licence to operate and resilient electricity supply.</li> </ul>				<ul style="list-style-type: none"> <li>Undermines TNB's operational sustainability and reduces stakeholders' confidence in its sustainability and eco-efficiency value proposition.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Prioritises investment in water-efficient technologies and operational practices for assets exposed to high water stress and climate variability.</li> <li>Integrates water-scarcity risk considerations into asset planning, performance management and environmental stewardship frameworks.</li> </ul>				<ul style="list-style-type: none"> <li>Integrates water management considerations into operational planning to reduce consumption and improve resilience.</li> <li>Drives continuous efficiency improvements to manage costs and elevate sustainability performance.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Delivers recurring operational cost savings through reduced water consumption, improved recycling efficiency and avoidance of scarcity-driven cost escalation.</li> <li>Protects long-term asset value and cash flow by reducing exposure to water supply constraints, tariff increases and potential operational curtailments.</li> </ul>				<ul style="list-style-type: none"> <li>Higher operating costs resulting from increased water consumption and revision of water tariff by authorities.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Cost Savings RM1.3 mil	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	-	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil

## WATER AND BIODIVERSITY

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Biodiversity-Integrated Infrastructure Planning				Risk: Inadequate Assessment and Tracking of Biodiversity Net Positive Impact			
Description	<p>TNB can systematically integrate biodiversity and ecosystem considerations across its network planning, asset development and operational practices. By applying nature-inclusive siting and routing principles-supported by environmental baseline data and impact assessments, TNB can minimise disruption to critical habitats and ecosystem services. This approach reduces permitting challenges, stakeholder opposition and costly redesign or mitigation later in the asset lifecycle, while supporting national biodiversity commitments under the Global Biodiversity Framework.</p> <p>Enhanced vegetation and corridor management-such as selective clearance, wildlife-friendly tower designs in ecologically sensitive areas and the use of native species for replanting can improve soil stability, reduce erosion risks and maintain carbon-rich landscapes near transmission routes. These practices can also lower the frequency and cost of corrective maintenance over time, provided that interventions are well-targeted and informed by ecological monitoring data.</p>				<p>TNB is committed to preserving ecosystems affected by its operations and to maintaining, restoring and enhancing ecosystem integrity, resilience and connectivity, aligned with the TNB Biodiversity Framework. Achieving a net positive impact on biodiversity requires robust baseline data, sustained ecological monitoring and science-based evaluation of restoration outcomes.</p> <p>However, Malaysia's highly diverse ecosystems, fragmented habitats and inconsistent ecological datasets make it challenging to establish accurate baselines or verify long-term biodiversity gains. Limited availability of scientific expertise, resource constraints and the absence of continuous monitoring tools further hinder effective tracking. These gaps increase the risk that biodiversity initiatives may not deliver meaningful ecological improvements, reducing transparency and credibility in meeting national and global biodiversity commitments. Without a structured, evidence-based monitoring framework, TNB may face challenges in demonstrating measurable progress toward achieving net positive biodiversity impact.</p>			
Impact on Business Model & Value Chain	<ul style="list-style-type: none"> <li>Enhances long-term network resilience by reducing risks such as erosion, landslides, sedimentation and asset degradation in environmentally sensitive corridors.</li> <li>Strengthens licence to operate through proactive protection of critical habitats and ecosystem services that support uninterrupted power delivery, while reducing environmental liabilities.</li> </ul>				<ul style="list-style-type: none"> <li>Undermines TNB's operational sustainability and reduces stakeholders' confidence in its sustainability and eco-efficiency value proposition.</li> </ul>			
Effect on Strategy & Decision Making	<ul style="list-style-type: none"> <li>Drives wider integration of biodiversity insights into infrastructure routing, vegetation management and asset planning to mitigate long-term operational risks.</li> <li>Prioritises adoption of digital ecological assessment tools to support risk-based decision-making and optimise maintenance investments.</li> </ul>				<ul style="list-style-type: none"> <li>invests in ecological monitoring technologies and apply standardised biodiversity metrics for consistent performance assessment.</li> <li>integrates biodiversity tracking into sustainability reporting to strengthen transparency and enable informed decision-making.</li> </ul>			
Effect on Financial Performance, Position & Cash Flow	<ul style="list-style-type: none"> <li>Reduces recurring operational expenditure such as clearance, restoration and dredging costs associated with environmental impacts on grid and hydropower assets.</li> <li>Avoids high-cost future liabilities by preventing degradation events that would otherwise trigger costly remediation works and prolonged disruptions.</li> </ul>				<ul style="list-style-type: none"> <li>Higher operating costs from TNB's biodiversity dependent assets such as hydro power plants resulting from increased expenditure on biodiversity action plans such as dredging activities to manage sedimentation at the reservoir.</li> </ul>			
Time Horizon	Current	Short	Medium	Long	Current	Short	Medium	Long
Anticipated Effect on Financial Position	CAPEX RM35.6 mil – RM36.5 mil	CAPEX <RM50 mil	CAPEX RM50 mil – RM450 mil	CAPEX RM50 mil – RM450 mil	Cost Increase RM31.6 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil	–

## GOVERNANCE IN ACTION

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

The TNB Board Sustainability and Risk Committee (BSRC) oversees the implementation effectiveness of TNB's Sustainability Framework, including water and biodiversity management to achieve strategic objectives and sustainability commitments.

At management level, the Sustainability & Energy Transition Committee (SETC), chaired by the President/Chief Executive Officer and comprising members of TNB's top management, is accountable for the management of water and biodiversity. Water and biodiversity management and performance are presented and deliberated in the SETC, to ensure the effective implementation of water and biodiversity initiatives.

## STRATEGY

IFRS S1.29,30,31,33(a)(b)(c); IFRS S2.14(a)(b)(c)

TNB's Water and Biodiversity Management is governed by TNB's Sustainability Policy and TNB's Environmental Policy, which outline TNB's commitment on optimal utilisation of natural resources through effective land use and water management. These policies further promote the minimisation of impacts on biodiversity and the protection of environmental ecosystems.

The TNB Biodiversity Framework serves as a guideline for integrating biodiversity conservation into aspects of TNB's operations. Recognising the diversity of its assets, the framework prioritises the protection and enhancement of key ecosystem elements, directing efforts towards maintaining ecological integrity. It also establishes a systematic approach to managing biodiversity throughout TNB's project lifecycle stages, from site planning to decommissioning, ensuring that operational growth does not come at the expense of biodiversity ecosystems.

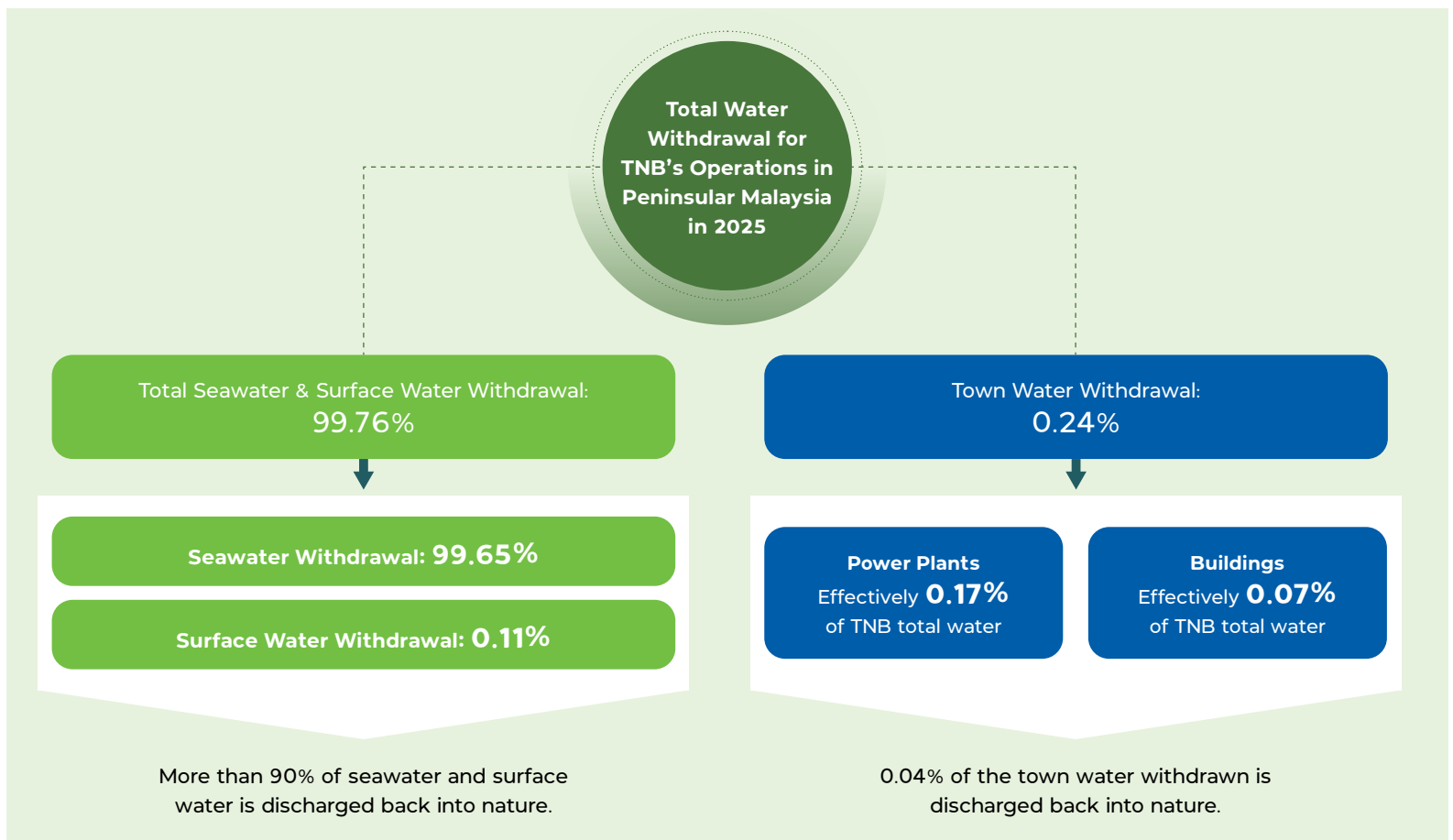
## WATER AND BIODIVERSITY

### WATER MANAGEMENT STRATEGY

IF-EU-140a.3.4

#### Understanding TNB's Water Footprint

Electricity generation is one of the most water-intensive sectors globally, with thermal power plants relying heavily on water for cooling and other key operational activities. Our operations in Peninsular Malaysia withdraw water from two (2) sources: (i) seawater and surface water, and (ii) town water. A total of 99.76% of our water withdrawal comes from seawater and surface water, mainly for cooling purposes, with most of this volume safely discharged back into the environment.



While the proportion of town water withdrawal remains minimal at 0.24% of total water withdrawal, we continue to implement comprehensive water management measures, with approximately more than 90% of water discharged back into nature. To reduce water consumption across our operations, we are guided by the following three focus areas:

<p><b>Transition to a Cleaner Energy Mix</b> Phasing down coal dependency and expanding gas and renewable generation to significantly lower overall water intensity</p>	<p><b>Operational Efficiency and Technology Adoption</b> Integrating smart water-use technologies, automated leak detection and closed-loop cooling systems alongside infrastructure upgrades during plant refurbishment and repowering projects</p>	<p><b>Water Circularity</b> Scaling up rainwater harvesting and recycling initiatives across corporate and operational facilities</p>
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We are committed to reducing water consumption intensity by 15% by 2035 against the 2025 baseline of 0.118. In achieving this target, we have implemented key initiatives aimed at reducing town water withdrawal through technological enhancements and process optimisation, ensuring responsible resource management and improved operational sustainability. These key initiatives include:

- Transition from Coal to Gas and Renewable Energy to Reduce Emissions and Water Consumption Intensity
- Water Optimisation in Thermal Power Plant Operations
- Alternative Water Sources for Thermal Power Plant Cooling System
- Water Reduction Initiative for TNB Office Buildings
- Rainwater Harvesting and Reuse Programmes

### TOWN WATER OPTIMISATION IN THERMAL POWER PLANT OPERATIONS

Our thermal power plants are designed and operated in alignment with the World Bank Environmental and Social Standards, adhering to stringent water consumption protocols consistent with high-efficiency thermal plant practices.

Notably, two (2) Combined Cycle Gas Turbine power plants, *Stesen Janakuasa Perai* (SJP) and Sultan Ibrahim Power Plant (SIPP), have implemented an initiative to reduce town water consumption by addressing steam leaks in their Heat Recovery Steam Generators (HRSG). Findings of assessments have shown that the original drain valves were prone to leakage, leading to excessive demineralised water usage and reduced efficiency. To resolve this, the plants adopted advanced zero-leakage valve technology, engineered to completely prevent steam and water loss even under extreme pressure and temperature.

As a result, demineralised water consumption at SJP reduced by 58% and water consumption at SIPP reduced by 73% while maintaining consistent power output. These outcomes highlight how innovation and adoption of next-generation efficiency technologies can deliver measurable environmental and operational benefits.



Stesen Janakuasa Perai



Sultan Ibrahim Power Plant

Advanced zero leakage valve technology is implemented in SJP and SIPP to reduce demineralised and town water consumption while maintaining operational efficiency.

### ALTERNATIVE WATER SOURCES FOR THERMAL POWER PLANT COOLING SYSTEM

TNB's power plant cooling systems are designed to optimise water efficiency by utilising alternative sources such as seawater and river water, thereby reducing dependence on town water supplies. Through the open-circuit Main Cooling Water (MCW) system, these water sources are used by the condenser system, with the discharged water returned to the sea, achieving zero net water consumption. This is carried out in full compliance with the Department of Environment's (DOE) required temperature and chlorine levels. This practice exemplifies our dedication to sustainable operations and environmental responsibility, consistent with global water conservation standards and performance benchmarks outlined by the Electric Power Research Institute (EPRI).

All of our coal and gas power plants utilise a closed-loop system process as a baseline to minimise reliance on town water sources. In parallel, two (2) of our gas power plants, *Stesen Janakuasa Putrajaya* (SJPJ) and *Stesen Janakuasa Gelugor* (SJG), are designed with air-cooled cooling systems that eliminate the need for water withdrawal, supporting efficient and sustainable cooling solutions that are well-suited for urban settings.

TNB Thermal Power Plant Town Water Consumption Intensity <sup>1</sup>					
No.	TPGSB Thermal Power Plant <sup>3</sup>	Water Intensity Litre/kWh	International Counterparts <sup>2</sup>	Steam-water Cycle	Water Source for Cooling System
1.	<i>Stesen Janakuasa Sultan Azlan Shah</i> (SJSAS)	0.453	0.24 – 0.47	Closed Loop	
2.	<i>Stesen Janakuasa Tunku Muhriz</i> (SJTM)	0.147	(Ultra-supercritical Boiler)	Closed Loop	
3.	<i>Stesen Janakuasa Sultan Salahuddin Abdul Aziz</i> (SJSAA)	0.268	0.27 – 0.52 (Sub-critical Boiler)	Closed Loop	Sea Water
4.	<i>Stesen Janakuasa Perai</i> (SJP)	0.032		Closed Loop	
5.	<i>Stesen Janakuasa Tuanku Jaafar</i> (SJTJ)	0.098	0.08 – 0.38	Closed Loop	
6.	<i>Sultan Ibrahim Power Plant</i> (SIPP)	0.045	(Combined-cycle Gas Turbine)	Closed Loop	
7.	<i>Stesen Janakuasa Connaught Bridge</i> (SJCB)	0.077		Closed Loop	River water
8.	<i>Stesen Janakuasa Putrajaya</i> (SJPJ)	Not applicable	Not Applicable (Open Cycle Gas Turbine)	Not Applicable	Not Applicable (air-cooled)

Notes:

<sup>1</sup> Water consumption based on municipal/ town water consumption.

<sup>2</sup> Average international counterparts water consumption intensity of United State depicted from report of „A Review of Operational Water Consumption and Withdrawal Factors for Electricity Generating Technologies in the United States. (March 2011) by NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, operated by the Alliance for Sustainable Energy, LLC.

<sup>3</sup> *Stesen Janakuasa Gelugor* (SJG) is excluded from the table as it was not in operation during the reporting period.

## WATER AND BIODIVERSITY

### RAINWATER HARVESTING

TNB has progressively deployed rainwater harvesting systems across its operational sites including solar farms, power plants, substations and corporate facilities to enhance water efficiency and circular use. The harvested rainwater is reused for landscape irrigation, equipment cooling, building maintenance and other industrial applications. Below are the rainwater harvesting systems installed at TNB operations:

Asset	Rainwater Harvesting System
<b>Thermal Power Plant</b>	TNB Janamajung and <i>Stesen Janakuasa Tunku Muhriz</i> have installed large-scale rainwater harvesting systems with capacities of 1,375,000 litres and 1,890,000 litres respectively. The harvested rainwater is utilised for coal yard dust suppression, effectively reducing reliance on freshwater sources. In addition, used water is recirculated into process tanks for reuse, optimising resource efficiency and minimising waste.
<b>Large Scale Solar</b>	Rainwater harvesting systems with storage capacities of 24,000 litres and 1,000 litres are installed at Sepang Solar and Bukit Selambau, respectively. These systems help reduce ground runoff and mitigate erosion, while providing an essential alternative water sources to support photovoltaic (PV) module cleaning, cooling and fire prevention.
<b>Substation</b>	A rainwater harvesting system with a capacity of 1,800 litres is installed at PMU Brickfields. The system captures and stores rainwater, which is then used for building cleaning purposes and toilet cisterns, reducing dependence on treated water sources.
<b>TNB Platinum Building, TNB PSD Building and Balai Islam, Bangsar</b>	Rainwater harvesting systems installed at the TNB Platinum building, TNB PSD Building and Balai Islam in Bangsar are utilised for landscape irrigation and gardening, reducing the reliance on municipal water supply. A total of 8.37 megalitres of rainwater were harvested in 2025.



Rainwater harvesting tank at TNB building



Rainwater harvesting at TNB building

Rainwater harvesting systems installed at the TNB PSD Building (left) and Balai Islam in Bangsar support landscape irrigation and gardening activities, contributing to improved water efficiency and reduced reliance on treated water sources.

### WATER REDUCTION INITIATIVE FOR TNB OFFICE BUILDINGS

The "Drip by Drip, Watt by Watt" initiative is a company-wide programme implemented across 109 TNB office buildings, designed to drive systematic improvements in both water efficiency and energy performance. This initiative integrates behavioural change, infrastructure upgrades and continuous monitoring to reduce resource consumption while supporting TNB's broader sustainability commitments. In 2025, our water-efficiency initiatives achieved a savings of 2,181 m<sup>3</sup>, representing a 3.3% reduction against the corresponding period in the previous year.

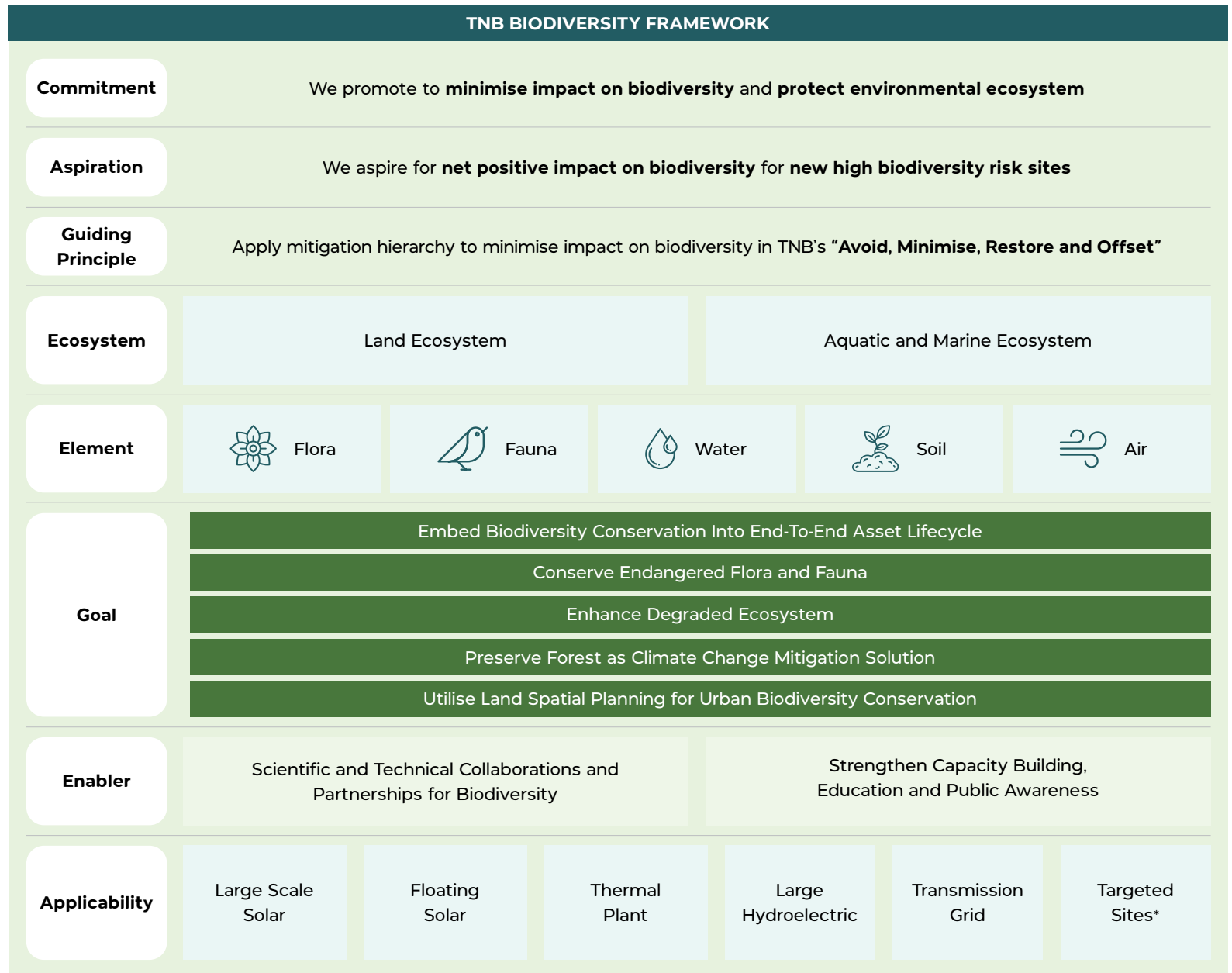
Overall, the systems at the KL headquarters resulted in the collection and reuse of 8.37 megalitres in 2025. This collection directly reduces our reliance on town water. Looking ahead, integrating efficiency, innovation and circularity across operations does not only reduce TNB's water consumption intensity and also reinforces its role as a responsible energy provider. Our 15% reduction target by 2035 reflects a forward-looking approach, balancing the nation's growing energy needs with the protection of vital natural resources, ensuring that every drop counts towards a more sustainable future.

### BIODIVERSITY MANAGEMENT STRATEGY

#### Integrating Biodiversity into TNB's Operational Lifecycle

The TNB Biodiversity Framework provides a structured governance for managing biodiversity-related risks and opportunities in our operations. Developed in alignment with the Kunming-Montreal Global Biodiversity Framework and Malaysia's National Policy on Biological Diversity 2022-2030, the framework outlines clear goals to embed biodiversity considerations throughout the asset lifecycle. It also aims to conserve endangered species, enhance degraded ecosystems, promote urban biodiversity through spatial planning and preserve forests as a nature-based solution to climate change.

Supported by scientific collaborations, capacity building and public awareness initiatives, the framework is applied across TNB's operations including solar, hydro, thermal and grid assets to strengthen ecosystem resilience and advance responsible growth.



\* Targeted sites cover degraded areas, high biodiversity value areas and locations with ecotourism potential.

**Internalising Biodiversity Framework: BEAVER Project**

In 2025, we initiated the BEAVER Project to operationalise TNB's Biodiversity Framework and integrate biodiversity considerations across our operations and project lifecycle. Using the TNFD-aligned LEAP approach, the project identifies and assesses nature-related dependencies, impacts, risks and opportunities. The objective is to establish a TNB Biodiversity Roadmap, a Net Positive Impact (NPI) target and a biodiversity risk management guideline that will serve as an overarching guide across TNB's operations.

To assess the feasibility and effectiveness of the developed biodiversity risk management process, we have selected four pilot sites consisting of a large scale solar, a hydroelectric plant, a thermal plant and a transmission grid for the implementation of a biodiversity action plan. By 2026, we aim to establish and disclose a baseline of our existing operations and new projects located within biodiversity-sensitive areas, supporting transparent reporting and enabling progress tracking towards the development of our Biodiversity Roadmap and NPI target.

## WATER AND BIODIVERSITY

### Biodiversity Engagement and Collaboration

As part of TNB's biodiversity conservation strategy, we actively engage with diverse stakeholders across multiple platforms. These partnerships aim not only to conserve and rehabilitate natural habitats but also to promote sustainable livelihoods through activities such as ecotourism development and the mitigation of human-wildlife conflict. Through this integrated approach, we contribute to strengthening biodiversity outcomes, supporting local economies and building resilient communities that coexist harmoniously with the environment.

Our engagement opportunities include providing expert views to stakeholders in the development of new national protocols and guidelines, engaging in strategic dialogues with government agencies and regulators and actively participating in biodiversity forums and initiatives at both the national and international levels.

<p><b>Expert views in formulation of new protocols or guidelines in Malaysia</b></p>	<ul style="list-style-type: none"> <li>• DOE Seminar – Issues and Challenges in the Development of Hybrid Hydro Floating Solar (HHFS) in Malaysia</li> <li>• Kelantan Limestone Flora Documentation Workshop</li> <li>• National Symposium on Asian Elephant Conservation and Management 2025</li> </ul>
<p><b>Dialogues with government agencies or regulators</b></p>	<ul style="list-style-type: none"> <li>• Biodiversity benchmarking visit and dialogues with Sarawak Forestry Corporation (SFC)</li> <li>• Biodiversity benchmarking visit and dialogues with Sarawak Biodiversity Centre (SBC)</li> <li>• Dialogue session between TNB management and The Economic Club of Kuala Lumpur (ECKL)</li> </ul>
<p><b>Participation in biodiversity forum or activities at national and international platforms</b></p>	<ul style="list-style-type: none"> <li>• FRIM Biodiversity Seminar 2025</li> <li>• Sustainability &amp; Renewable Energy Forum (SAREF) 4.0 at Sarawak</li> <li>• The Sustainable Action Conference (SAC) 2025</li> <li>• International Greentech &amp; Eco Product Exhibition &amp; Conference Malaysia (IGEM) 2025</li> <li>• Turning Sustainability Data into Real Business Value at Data to Disclosure Forum (D2D Forum)</li> <li>• Energy &amp; Nature Forum 2025 – Collaborative Pathways for Nature Positive</li> </ul>

### Strengthening Our Positive Contribution to Biodiversity

We apply a site-specific biodiversity approach that considers local ecological characteristics, operational context and surrounding land-use conditions. This adaptive and science-based strategy supports TNB's long-term vision of integrating biodiversity stewardship into sustainable energy development.

In 2025, we invested approximately RM3.4 million to implement various biodiversity initiatives across key operational sites. Among our key highlights were:

#### LARGE HYDROELECTRIC

##### Nenggiri Hydroelectric Project - Addressing Human-Wildlife Conflict

At TNB, we proactively manage nature-related risks at the Nenggiri Hydroelectric Project by integrating biodiversity risk mitigation into project delivery, governance and stakeholder engagement. Our established Wildlife Rescue and Conservation (WILDREC) Centre at the Nenggiri Hydroelectric Project serves as a key operational control for managing material nature-related risks arising from human-wildlife interactions involving protected and endangered species. In collaboration with *Jabatan Perlindungan Hidupan Liar dan Taman Negara Semenanjung Malaysia* (PERHILITAN) and *Jabatan Kemajuan Orang Asli* (JAKOA), we have implemented site-specific measures including wildlife monitoring using GPS collars and camera traps, as well as native reforestation supported by on-site nurseries to minimise ecological impacts and enhance long-term ecosystem resilience. In addition, we held wildlife awareness sessions through collaborations with PERHILITAN, *Jabatan Pendidikan Negeri Kelantan*, JAKOA, *Jabatan Perhubungan Awam* and *Universiti Kebangsaan Malaysia* (UKM) to not only safeguard workers and communities, but also to guide them on the Standard Operating Procedures (SOP) for wildlife conflict mitigation and reporting. This included an environmental awareness and educational camp held in 2025 for 60 students from the Gua Musang district.



### Supporting the AKEKCHEP Fish Sanctuary at the Royal Belum State Park

Since 2020, we have been collaborating with the local Indigenous communities to support the AKEKCHEP Fish Sanctuary in the Royal Belum State Park. The initiative aims to safeguard local fish populations and maintain the ecological integrity of freshwater habitats, reflecting our commitment to protecting biodiversity in ecologically sensitive landscapes while strengthening nature-positive outcomes through community partnership.

The community-led programme has not only reduced nature-related risks and improved the aquatic ecosystems for the long term but also minimises biodiversity loss and ecosystem degradation. Additionally, the Indigenous community's participation in monitoring freshwater habitats and managing the sanctuary enables us to strengthen inclusive engagement and build shared responsibility for biodiversity protection.

Going forward, we will continue to work closely with the communities where we operate to contribute to socio-economic development and advance wildlife habitat restoration. This partnership approach will enhance ecosystem resilience while supporting coexistence with wildlife, further advancing our ambition towards establishing a Biodiversity Roadmap and a Net Positive Impact.

### COAL POWER PLANTS

#### Fostering Migratory Waterbirds Awareness at Stesen Janakuasa Sultan Salahuddin Abdul Aziz (SJSSAA) Ash Pond

The ash pond areas within the Stesen Janakuasa Sultan Salahuddin Abdul Aziz (SJSSAA) were first identified as an important roosting site for waterbirds as early as 1988. Subsequent scientific studies, including surveys commissioned by TNB and conducted by Wetlands International (formerly the Asian Wetland Bureau), confirmed the site's ecological value.

Supporting bird movement between the Klang islands and Kapar, the site serves as a high-tide roosting area when coastal mudflats are submerged and provides refuge during critical stages of migration.

Long-term monitoring under the Asian Waterbird Census (AWC) recorded a peak count of 36,692 waterbirds at Kapar, the highest ever documented in Malaysia. Notably, peak counts have remained consistent between 20,000 and 30,000 birds over the years, underscoring Kapar's sustained importance as one of the most significant migratory waterbird roosting sites in the country.

To continue supporting the migratory waterbirds, we will work closely with relevant stakeholders to promote understanding of the SJSSAA ash pond as a critical roosting habitat for the birds while advocating migratory bird awareness and birdwatching programmes. This will include collaboration with NGOs, local communities and other stakeholder groups, with a focus on enhancing environmental stewardship, strengthening stakeholder engagement and supporting the long-term conservation of biodiversity at the site.



Euroasian Curlew



Whiskered Tern

## WATER AND BIODIVERSITY

### SOLAR AND WIND

#### Wildlife and Habitat Stewardship at Bukit Selambau, Kedah LSS; Bomen Solar Farm, Australia; and Vantage RE's Bunkers Hill and Eastfields Solar Farms, UK

At the TNB Bukit Selambau LSS operated by TNB Renewables Sdn. Bhd. in Kedah, we have implemented several biodiversity initiatives that help protect natural resources and minimise adverse environmental impacts. Key initiatives include introducing fish and aquatic plants to transform stormwater ponds into functioning ecosystems and using goats to manage vegetation instead of chemical herbicides. We have also conducted behavioural studies on macaques to develop targeted strategies to reduce human-wildlife conflict.

Beyond Malaysia, similar approaches are being applied across our international renewable energy portfolio, where biodiversity considerations are integrated into operational practices and land stewardship strategies. At the Bomen Solar Farm in Wagga Wagga, Australia, Spark Renewables has adopted an agrivoltaic approach that enables renewable energy generation to coexist with complementary agricultural activities. Sheep grazing is incorporated within the solar farm for natural vegetation management, reducing the need for mechanical or chemical control methods while supporting ongoing agricultural land use.

The site has also incorporated a long-standing beekeeping initiative in partnership with local beekeeper Queen & Honey. Throughout the year, five permanent beehives are maintained along the perimeter of the solar farm. During the flowering season of the yellow box tree, a native Australian species known for its high nectar yield, the site also accommodates up to 90 temporary beehives. This seasonal increase in hive density supports pollination activity across the surrounding landscape while enabling local honey production. The initiative also contributes to regional agricultural productivity through enhanced pollination services and provides direct support to a local beekeeping enterprise.



*The integrated approach reflects Spark Renewables' broader objective of enabling renewable energy assets to coexist with agricultural land uses and complementary activities, thereby supporting both environmental and socio-economic outcomes.*

In the United Kingdom and Ireland, Vantage RE continues to strengthen ecosystem resilience through natural habitat management initiatives implemented across its solar sites. These efforts include wildflower meadow planting, hedgerow enhancement and native habitat creation to improve habitat connectivity and support local biodiversity.

Recognising the growing pressures faced by pollinator species due to habitat loss and declining nesting availability, Vantage RE has adopted a nature-based approach to supporting pollinator populations through the development of bee hotels for UK-native solitary bees. With guidance from a bee specialist, constructed wooden structures are designed to replicate natural nesting environments, such as hollow stems and wood cavities.

Moving forward, we plan to install bee hotels in Spring 2026 at Vantage RE's Bunkers Hill and Eastfields solar farms, aligned with the seasonal emergence period of solitary bees from winter dormancy. The initiative will also provide internal capacity-building opportunities, enhancing team understanding of biodiversity integration within renewable energy project design and operations. In addition, it will further support Vantage RE's broader commitment to delivering infrastructure that enhances ecological resilience and responsible land stewardship.

## FLOATING SOLAR

### Social and Environmental Impact Assessment at Pilot Hybrid-Hydro Floating Solar (HHFS), Kenyir

TNB is spearheading the development of Malaysia's first 2.5 GW Hybrid-Hydro Floating Solar (HHFS) programme across strategic reservoirs, supporting renewable energy integration and national NETR objectives. At Tasik Kenyir, a 100 kWac pilot system has been deployed near the Sultan Mahmud Power Station to assess technical performance, environmental integrity and long-term sustainability of the hybrid configuration. The project is supported by a comprehensive Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) studies, which provide insights on project design, mitigate environmental and social risks, safeguard the lake ecosystem and community interests while strengthening regulatory compliance.



### Empowering Marine Recovery: Coral Restoration Effort in Pulau Tioman



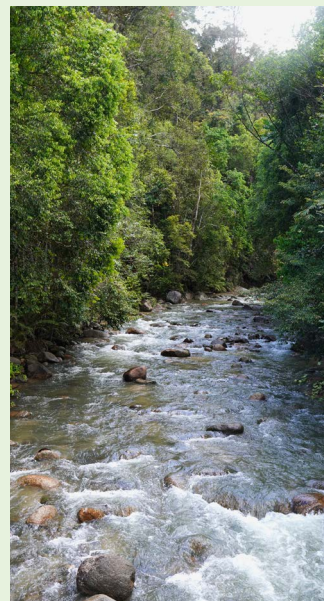
At Pulau Tioman, we integrate coral restoration measures into our Offshore Floating Solar PV (OFSPV) operations, embedding marine biodiversity risk management alongside renewable energy development. The project involved the transplantation of 132 coral colonies across 22 concrete reef blocks, supported by structured monitoring and maintenance to ensure survival and adaptation to the new habitat. Implemented in close collaboration with the Department of Fisheries as regulatory approver, Universiti Malaya (UM) as technical advisor and Reef Check Malaysia as the conservation and monitoring partner, the initiative delivers measurable marine biodiversity outcomes while strengthening regulatory compliance and stakeholder engagement. This project also supports local dive centres by engaging them to supply diving equipment and boats.

## TRANSMISSION GRID

### Chiling River (*Sungai Chiling*) - Protecting the Native Species

Located between Kuala Kubu Bharu and Fraser's Hill, the Chiling River is a unique freshwater ecosystem supporting high-value endemic fish species, including *Tor tambroides* (*ikan kelah*) and *Neolissochilus soroides* (*ikan tengas*). Given the ecological sensitivity of this habitat, the development of a new overhead transmission line through this corridor was approached with careful consideration, integrating biodiversity risk management into project planning and execution.

This included the implementation of the Chiling River Fish Monitoring, Nursing and Rehabilitation Programme, which enables us to assess, mitigate and manage aquatic biodiversity impacts as we incorporate scientific monitoring, species rehabilitation and riverbank ecosystem restoration. Supported by government agencies, academic experts and local communities, the programme delivered measurable ecological outcomes, including a 93% increase in fish populations and improved water quality while strengthening regulatory compliance, ecosystem resilience and stakeholder trust. The initiative has been recognised by the Department of Environment and the Department of Fisheries, demonstrating TNB's systematic approach to managing material nature-related risks.



## WATER AND BIODIVERSITY

### TRANSMISSION GRID

#### Proactive Route Selection

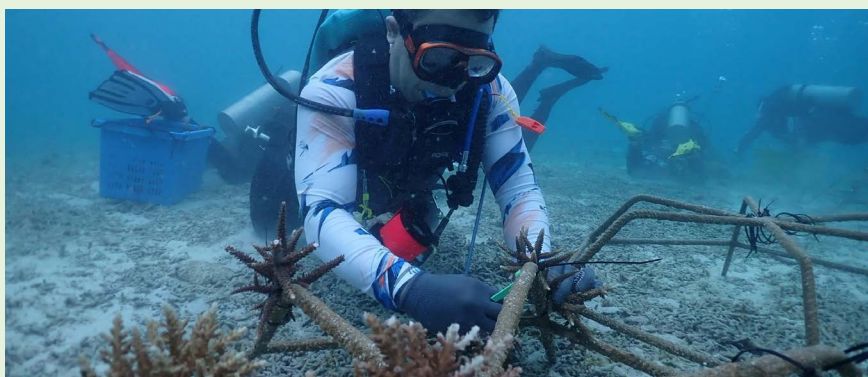
We integrate biodiversity protection into our transmission route planning by utilising the Tree Hyperspectral Identification System (THySIS) to detect endangered tree species along proposed routes. This enables us to protect endangered forest species during route selection and enhances data management through high-quality ecological insights, supporting long-term line maintenance and future environmental initiatives.

### OTHER CONSERVATION INITIATIVES

#### CORAL REEF CONSERVATION

##### Coral Garden of Hope Project

As part of our commitment to environmental stewardship and marine biodiversity conservation, Subsidiary Management Department collaborated with Coralku, a local NGO, on the Coral Garden of Hope Project. Through this initiative, approximately 500 coral fragments and seedlings were planted across 25 coral frames, covering 800 square feet of seabed. Beyond restoring marine ecosystems, the project also supports our broader climate action agenda, as coral reefs are estimated to absorb carbon dioxide up to 66% more efficiently than terrestrial forests of equivalent size.



##### The Bahulu Project

We support coral reef conservation at Pulau Perhentian under the *Projek Pulau Tenaga Hijau* initiative, integrating marine biodiversity management with sustainable, low-carbon island operations. The five-year Bahulu Project, implemented in collaboration with Ocean Ranger Malaysia, deploys innovative artificial reef structures to restore coral ecosystems and enhance marine resilience. To date, 50 Bahulu units containing 500 coral nubbins have been installed to accelerate reef recovery. Beyond ecological outcomes, the programme delivers socio-economic value by engaging local communities in reef fabrication, supporting eco-tourism development and strengthening sustainable fisheries.



#### Habitat Conservation for Sustainable Firefly Ecosystem at Sg Chukai, Terengganu



TNB implements a habitat conservation programme at Sungai Chukai, Terengganu, to protect firefly populations and their riparian ecosystems, integrating biodiversity management with community-based ecotourism. The programme combines population monitoring, mangrove-based habitat rehabilitation, and sustainable tourism enhancement to track ecological outcomes and assess restoration effectiveness. 108 native trees including *berembang*, *bebaru* and *nipah* were planted along Terusan Zoo Kemaman, to improve habitat quality and support long-term ecosystem resilience.

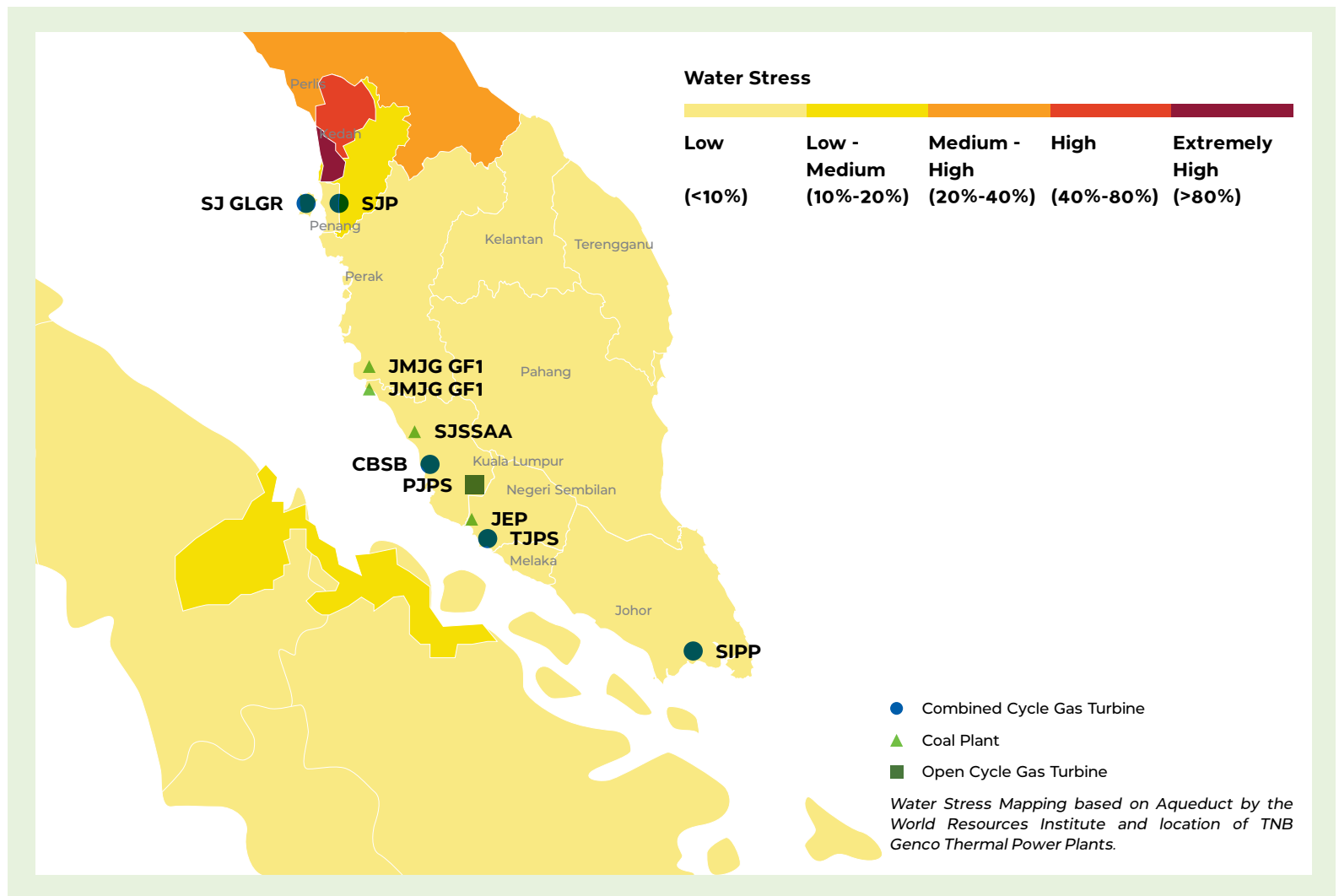
**RISK MANAGEMENT**

IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c)

**WATER RISK MANAGEMENT**

IF-EU-140a.3.1.2,3

All our coal and combined cycle power plants are located in areas with low water stress and none are located in water stress areas. Therefore, there are zero (0) water withdrawals from water stress regions. This strategic placement highlights our commitment to sustainable resource usage and community harmony, preventing potential conflicts over water resources between industry and local communities. The process begins from planning and construction of the respective thermal power plants. In addition, all of our coal and combined cycle power plants were built and continue to operate in accordance with the global "World Bank Environmental and Social Standards" which were established based on the initial project bidding requirements. These standards include water consumption process which are archetypical of conventional high-efficiency thermal plants.



We conduct water stress assessments across all TNB generation assets including thermal power plants, hydropower plants and solar power plants, using the World Resources Institute (WRI) Aqeduct framework, confirming that our plants operate in low water stress areas, reducing competition for water resources with local communities. To safeguard long-term water availability, we adopt an integrated water-risk management approach that prioritises efficient consumption and minimises freshwater withdrawal. We also ensure that all water discharged back into nature meets regulatory standards, remains usable and causes no harm to surrounding ecosystems.

We maintain strict seawater and river water quality management across all generation facilities to meet the Department of Environment's requirements, supported by continuous monitoring, real-time systems and well-established emergency response procedures. All major facilities operate under the ISO 14001-certified Environmental Management Systems, ensuring systematic control of water use, seawater and river water discharge quality as well as regulatory compliance. Regular internal and third-party audits further strengthen governance and drive continuous improvement in water efficiency.



## WATER AND BIODIVERSITY

### BIODIVERSITY RISK MANAGEMENT

A comprehensive risk and impact assessment has been initiated to identify high biodiversity risk areas across TNB’s thermal, hydro, solar and grid operations. This assessment quantifies the biodiversity impact of our operations to formulate site-specific Biodiversity Action Plans.

The outcome of the biodiversity impact assessment is as follows:

**Legend** ● H High Potential Impact ● M Medium Potential Impact ● L Low Potential Impact

Ecosystem	Elements	Biodiversity Loss Driver	TNB Operation								
			LSS	Floating Solar	Onshore Wind	Offshore Wind	Thermal Plant	Hydro Electric	Grid		
<b>Aquatic and Marine Ecosystem</b>  	<b>Flora and Fauna</b>	Use of Aquatic Habitat		H				H		L	
		Use of Marine Habitat		H		L		L		L	
		Invasive Species		L			H	L			
		Conflict		L			M				
	<b>Water</b>	Water Exploitation					H	H			
		Water Pollution		L		L	H	L		L	
	<b>Air</b>	Air Pollution						H			
	<b>Land Ecosystem</b>  	<b>All</b>	Climate Change					H			
		<b>Flora and Fauna</b>	Land Use Changes and Habitat Fragmentation	H		L		M	H		M
			Invasive Species						L		
Conflict			H					H		L	
<b>Air</b>		Air Pollution					H				
<b>Soil</b>		Soil Pollution					L			L	

Note:  
Based on TNB’s internal high-level analysis.

## WATER AND BIODIVERSITY

We conducted an assessment of the impact of our operations on habitats, including proactively identifying endangered and threatened species listed by the International Union for Conservation of Nature (IUCN) within our operational areas, as follows:

IUCN Conservation Status	Flora	Terrestrial	Aquatic	Bird	Total No. of Species
<b>Critically Endangered (CR)</b>	-	-	-	-	0
<b>Endangered (EN)</b>	1	3	-	-	4
<b>Vulnerable (VU)</b>	8	11	-	4	23
<b>Near Threatened (NT)</b>	1	1	-	4	6
<b>Least Concern (LC)</b>	190	83	27	161	461
<b>Data Deficient (DD)</b>	14	-	71	43	128
<b>Not Evaluated (NE)</b>	152	-	-	-	152

Subsequent to the biodiversity risk assessments, we apply the Biodiversity Mitigation Hierarchy in the TNB Biodiversity Framework. The Biodiversity Mitigation Hierarchy provides four (4) guiding principles to ensure that biodiversity considerations are systematically integrated across our business operations. The application of the four (4) guiding principles - Avoid, Minimise, Restore and Offset - is detailed as follows:

<b>Avoid</b>	<p><b>Water</b></p> <ul style="list-style-type: none"> <li>Maintenance of buffer zone from river reserved</li> </ul>	<p><b>Soil, Flora and Fauna</b></p> <ul style="list-style-type: none"> <li>Avoid protected and high biodiversity areas</li> </ul>
<b>Minimise</b>	<p><b>Air</b></p> <ul style="list-style-type: none"> <li>Installation of Flue Gas Desulphurisation (FGD)</li> <li>Low NO<sub>x</sub> Burners</li> <li>Electrostatic Precipitator</li> </ul> <p><b>Water</b></p> <ul style="list-style-type: none"> <li>Manage water quality</li> </ul>	<p><b>Soil</b></p> <ul style="list-style-type: none"> <li>Prevention of soil pollution</li> <li>Avoid the use of pesticides for vegetation management using livestock</li> </ul> <p><b>Fauna</b></p> <ul style="list-style-type: none"> <li>Installation of a physical barrier and establishment of a buffer zone to prevent wildlife conflict</li> <li>Protection of bird life with sound repellent</li> </ul>
<b>Restore/ Remedy</b>	<p><b>Water</b></p> <ul style="list-style-type: none"> <li>Maintaining riparian release</li> </ul> <p><b>Soil</b></p> <ul style="list-style-type: none"> <li>Soil treatment</li> </ul> <p><b>Flora</b></p> <ul style="list-style-type: none"> <li>Rescue, relocation/translocation and monitoring of flora</li> <li>Nursery of native species seedlings created for reforestation</li> <li>Replanting of native vegetation</li> <li>Rehabilitate the degraded forest area</li> </ul>	<p><b>Fauna</b></p> <ul style="list-style-type: none"> <li>Rescue, relocation/translocation and monitoring of fauna</li> <li>Fish restocking</li> <li>Develop a wildlife corridor</li> </ul>
<b>Offset *Other locations</b>	<p><b>Flora</b></p> <ul style="list-style-type: none"> <li>Restoration of mangrove habitat</li> </ul>	<ul style="list-style-type: none"> <li>Tree planting</li> </ul>

## WATER AND BIODIVERSITY

### STRUCTURED BIODIVERSITY RISK MANAGEMENT PROCESS

Moving forward, we will be integrating our existing biodiversity practices into a structured biodiversity risk management process. The structured process is targeted to be operationalised across TNB's operations by 2026, covering biodiversity risk assessment, ecological impact assessment, dependency analysis, implementation of Biodiversity Action Plans (BAPs) and ongoing monitoring. This will further strengthen our efforts in minimising adverse ecological impact while protecting the environmental ecosystems.

### OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>WATER MANAGEMENT</b>								
<b>WATER WITHDRAWAL</b>								
<b>Total Water Withdrawal From All Areas by Sources</b>								
IF-EU-140a.1 GRI 303-3	Total water withdrawal from all areas	ML	3,694,205	4,235,191	4,514,331	-	-	
<b>Sources - Surface water</b>								
IF-EU-140a.1	Freshwater	ML	3,230	2,389	4,885	-	-	
GRI 303-3	Other water	ML	0	0	0	-	-	
<b>Sources - Seawater</b>								
IF-EU-140a.1	Freshwater	ML	0	0	0	-	-	
GRI 303-3	Other water	ML	3,679,348	4,221,884	4,498,783	-	-	
<b>Sources - Third-party water</b>								
IF-EU-140a.1	Freshwater	ML	11,627	10,917	10,663	-	-	
GRI 303-3	Other water	ML	0	0	0	-	-	
<b>Percentage of Water Withdrawn From Location With High or Extremely High Baseline Water Stress</b>								
IF-EU-140a.1 GRI 303-3	Water withdrawal from areas with High Baseline Water Stress	%	-	-	0.004	-	-	
	Water withdrawal from areas with Extremely High Baseline Water Stress	%	-	-	0	-	-	
	Freshwater Withdrawal Intensity	ML/GWh	0.146	0.149	0.206	-	-	
<b>WATER DISCHARGE</b>								
<b>Total Water Discharge to All Areas</b>								
GRI303-4	Total water discharge to all areas	ML	3,684,109	4,225,957	4,505,411	-	-	
<b>Total Water Discharge to All Areas by Category</b>								
GRI303-4	Category - Freshwater	ML	4,762	4,073 <sup>1</sup>	6,628	-	-	
	Category - Other water	ML	3,679,348	4,221,884	4,498,783	-	-	
<b>Total Water Discharge to All Areas by Destination</b>								
GRI303-4	Destination - Surface water	ML	3,230	2,389	4,885	-	-	
	Destination - Seawater	ML	3,679,348	4,221,884	4,498,783	-	-	
	Destination - Third-party water	ML	1,532	1,684	1,743	-	-	

## WATER AND BIODIVERSITY

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>WATER CONSUMPTION</b>								
<b>Total Water Consumption From All Areas</b>								
IF-EU-140a.1	Total water consumption from all areas	ML	10,096	9,234	8,920	-	-	
Bursa C9(a)[Water] GRI303-5	Water Consumption Intensity	ML/GWh	0.127	0.126	0.118	-	15% reduction in water intensity by 2035 using 2025 baseline	
<b>Percentage of Water Consumed From Location With High or Extremely High Baseline Water Stress</b>								
IF-EU-140a.1	Water consumed from areas with High Baseline Water Stress	%	-	-	1.56	-	-	
GRI 303-5	Water consumed from areas with Extremely High Baseline Water Stress	%	-	-	0	-	-	
<b>Water Management Target</b>								
IF-EU-140a.1	Percentage Reduction in water intensity	%	-	0.79	5.998	-	-	
<b>NON COMPLIANCE ASSOCIATED WITH WATER REGULATION</b>								
<b>Incidents of Non-Compliance Associated With Water Quality Permits, Standards and Regulations</b>								
IF-EU-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Number	-	2 <sup>2</sup>	0	-	-	

<sup>1</sup> Updated calculated number

<sup>2</sup> Data restated due to notice received from regulators for the financial year

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

**IFRS S2 MT 6 NUCLEAR AS A FUTURE CLEAN ENERGY SOURCE**



**WHY IS IT IMPORTANT?**

The inclusion of nuclear power as a low-carbon baseload fuel in the 13th Malaysia Plan (RMK13) reflects the nation’s growing focus on strengthening energy security, as demand for sustainable energy increases. As the national utility provider, TNB supports the Government’s intent to establish a comprehensive nuclear readiness framework, covering regulatory enhancement, capability building and alignment with international safety and governance standards. This signifies a major milestone in advancing the country’s long-term decarbonisation and energy security goals.

We keep abreast of the development of nuclear energy as we remain proactive in responding to external factors that affect energy security, including the Middle East conflict. We continue to closely monitor both domestic and international developments in nuclear energy to ensure our preparedness remains aligned with evolving industry standards, technological advancements and policy developments. These ongoing efforts will enhance our capability in managing potential safety, environmental and reputational risks associated with nuclear development. Our commitment is to ensure that any future nuclear deployment in Malaysia is supported by strong institutional readiness, responsible governance and operational excellence.

**OPPORTUNITY AND RISK**

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18 (a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Developer-Owner-Operator of Nuclear Power Facilities				Risk: Technology Uncertainty and Public Acceptance Challenges Impeding Nuclear Deployment			
<b>Description</b>	<p>TNB is exploring the opportunity to become a developer, owner and operator of nuclear power facilities in the long-term (2031-2050), recognising the potential for low-carbon, reliable electricity generation. This is in alignment with the Government’s long-term policy direction under RMK-13, which outlines the National Nuclear Energy Development Programme.</p> <p>As a technically experienced and regulated power utility, TNB is well-positioned to undertake readiness activities, including feasibility studies, establishing regulatory and safety frameworks and workforce capability development. These efforts aim to ensure that, if pursued, nuclear operations will adhere to the highest safety standards, protect communities and the environment and demonstrate TNB’s operational excellence in managing high-risk energy assets.</p> <p>By investing early in technical expertise, regulatory frameworks, and strategic partnerships with global nuclear agencies, TNB can build institutional readiness to become a credible developer-owner-operator of nuclear assets. From an IFRS S2 perspective, proactive nuclear readiness enhances TNB’s ability to manage physical and transition risks associated with a high-renewable energy system, where nuclear plays a stabilising baseload role. Strategically, this positions TNB to support Malaysia’s energy transition while maintaining robust nuclear safety and emergency management practices.</p>				<p>The Government of Malaysia is actively exploring the inclusion of nuclear energy to strengthen the country’s future power generation and support the energy transition. However, modern nuclear technology remains largely unproven at commercial scale, creating uncertainties around cost, supply-chain readiness, and long-term operational performance across the end-to-end nuclear value chain.</p> <p>Deployment is further challenged by nascent regulations, institutional capacity, and societal concerns, including public acceptance, nuclear safety and emergency response plans, as well as nuclear waste management. Site-specific constraints such as land availability and cooling-water access also add complexity.</p> <p>Collectively, these technology, regulatory and social challenges could delay or impede the effective implementation of nuclear power in Malaysia.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Builds long-term baseload stability and strengthens energy-system resilience in a high-renewables future.</li> <li>Enhances TNB’s technical and regulatory capabilities through early readiness, partnerships and institutional development.</li> </ul>				<ul style="list-style-type: none"> <li>Impedes energy transition progress and GHG emissions reduction targets to achieve Net Zero by 2050.</li> <li>Loss of strategic advantage for TNB to position itself as a pioneer and leading entity in nuclear within the Southeast Asian region.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Guides phased nuclear readiness planning (technical studies, regulatory frameworks, workforce capability) under long-term decarbonisation strategy.</li> <li>Supports engagement with government, regulators, and global OEMs to shape policy pathways and deployment models for future nuclear assets.</li> </ul>				<ul style="list-style-type: none"> <li>Collaborates with regulators and OEMs to expedite the progress of feasibility assessments and clarify technical and safety requirements.</li> <li>Conducts structured stakeholder engagement and public consultations, enabling phased nuclear deployment that addresses societal and regulatory expectations.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Creates long-term value through potential future baseload revenue streams, subject to policy clarity and commercial viability.</li> <li>Requires upfront investment in feasibility, capability building and institutional readiness with returns dependent on final investment decision and deployment schedule.</li> </ul>				<ul style="list-style-type: none"> <li>Delayed revenue realisation from the investment.</li> <li>Higher upfront costs and delayed returns could affect capital allocation and long-term financial performance.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	-	-	-	Revenue >RM5 bil - RM10 bil	-	-	-	Unrealised Revenue <RM5 bil

## NUCLEAR AS A FUTURE CLEAN ENERGY SOURCE

**GOVERNANCE IN ACTION***IFRS S1.27(a)(b); IFRS S2.6(a)(b)*

As with any emerging technology or major investment, TNB applies structured oversight to its exploration of nuclear power as a future clean energy source. TNB Board maintains its oversight in ensuring all initiatives are evaluated for risk, feasibility and alignment with national objectives. Decisions on potential energy sources follow TNB's Limits of Authority (LOA) framework, ensuring that feasibility studies, risk assessments and readiness activities undergo thorough evaluation before progressing. This process supports balanced consideration of financial, operational, environmental and social impact.

From a risk governance perspective, the Board Sustainability and Risk Committee (BSRC) provides oversight on emerging risks associated with nuclear exploration, reviewing key risk considerations and mitigation approaches as part of the Group's broader enterprise risk management framework.

Future decisions involving investment commitments or joint venture formation for nuclear projects will be escalated to the Investment Executive Committee (IEC)/Finance & Investment Committee (FIC) in accordance with TNB's Limits of Authority (LOA).

At the management level, the Sustainability & Energy Transition Committee (SETC) chaired by the President/Chief Executive Officer, oversees execution of nuclear-readiness initiatives, including capability development, technical assessments and stakeholder engagement.

In addition to SETC, key decisions related to nuclear development undergo governance through TNB's Group Executive Management Committee (GEMC), which reviews and approves major strategic proposals.

This governance structure ensures that nuclear readiness activities receive rigorous oversight at both management and Board levels. It provides clear oversight, defined accountabilities and transparent decision making, ensuring that TNB's preparation for potential nuclear development remains aligned with Malaysia's long term energy transition objectives.

**STRATEGY***IFRS S1.29,30,31,33(a)(b)(c); IFRS S2.14(a)(b)(c); IF-EU-540a.2.4*

Complementing the direction set under the 13th Malaysia Plan (RMK-13), TNB, as the national electricity provider, is proactively building the capability and readiness to potentially serve as the Developer-Owner-Operator (DOO) when the nation advances into nuclear generation, supporting Malaysia's economic growth and a just, sustainable energy transition.

While nuclear generation in Malaysia remains at a preparatory stage, TNB continues to build organisational readiness through targeted capability development, feasibility studies, stakeholder engagement and active collaboration with the Atomic Energy Licensing Board (AELB), Atom Malaysia and other key national agencies. These proactive measures reflect TNB's role in supporting the nation's long-term low-carbon and energy security agenda, ensuring that the transition into nuclear energy is underpinned by robust planning and readiness.

TNB recognises that the introduction of nuclear technologies will bring new dimensions of safety governance, regulatory oversight and stakeholder trust. Accordingly, TNB is working towards strengthening our governance, risk management and technical competency in alignment with International Atomic Energy Agency (IAEA) standards and global best practices in nuclear safety and sustainability. These efforts underscore TNB's commitment to ensuring that, when Malaysia embarks on nuclear power generation, the nation can rely on a resilient, responsible and ready utility partner to deliver it safely and sustainably.

**BEING PART OF THE NATION'S NUCLEAR DEVELOPMENT JOURNEY**

TNB has embarked on its nuclear development efforts through the establishment of the TNB Nuclear Taskforce in 2023, which serves as the focal point for nuclear-related initiatives and enables the consolidation of technical expertise and cross-divisional collaboration across the Group.

Building on this foundation, TNB further strengthened its organisational readiness with the establishment of a dedicated Nuclear Unit under TNB Genco to drive nuclear programme execution, workforce development and coordination with regulatory bodies and technology partners.

## NUCLEAR AS A FUTURE CLEAN ENERGY SOURCE

In support of these efforts, TNB has developed a core pool of nuclear-trained specialists across the Group and its academic partner, UNITEN, including degree holders in nuclear engineering and related disciplines from leading international institutions. These professionals are positioned across multiple strategic functions within TNB, with some directly supporting the Nuclear Unit in areas such as technology evaluation, preliminary siting studies, international benchmarking with nuclear utilities, and engagement with global organisations such as the IAEA and World Association of Nuclear Operators (WANO). The Nuclear Unit continues to strengthen TNB's internal capability through targeted training, international collaboration and workforce development initiatives in partnership with UNITEN and ILSAS.

### PRE-FEASIBILITY STUDIES AND TECHNICAL READINESS

TNB is translating Malaysia's national nuclear aspirations into actionable development plans and progressed two (2) key technical studies, the Nuclear Power Roadmap and the Siting Study. These studies are vital for defining the long-term development pathway, siting criteria and project implementation strategy that will prepare TNB to potentially serve as the DOO for Malaysia's inaugural nuclear facility.

At the same time, TNB continues to engage with leading nuclear technology providers and international partners, gaining valuable insights into reactor design, safety performance, regulatory requirements and deployment models suited to Malaysia's energy landscape. These engagements enhance TNB's technical readiness and strengthen its capability to support the nation's safe, sustainable and strategic entry into nuclear power generation.

TNB continues to build technical and organisational capabilities through collaborations with AELB, Atom Malaysia, MyPOWER and international nuclear agencies. These partnerships provide access to best practices in licensing, safety and operational management, ensuring that TNB is developing the competencies required for safe and reliable nuclear plant operations.

### STAKEHOLDER ENGAGEMENT AND PUBLIC CONFIDENCE

Recognising that stakeholder acceptance and public confidence are critical enablers of nuclear development, TNB works closely with the Government and regulatory bodies to strengthen awareness, transparency and trust as part of the nation's nuclear readiness efforts.

To date, TNB's engagements have primarily focused on ministries, regulators, industry partners and academia through technical briefings, coordination platforms and participation in national energy literacy programmes such as Malaysia Energy Literacy Program (MELP). While these initiatives contribute to broader understanding, explicit public engagement on nuclear energy will be expanded in alignment with the Government's communication strategy as the programme advances.

This phased approach ensures that nuclear-readiness communication reflects national policy direction and public information needs.

## RISK MANAGEMENT

*IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c); IF-EU-540a.2.2*

The adoption of nuclear energy in Malaysia introduces risks related to stakeholders' confidence and acceptance. Low awareness, safety concerns or perceptions of inadequate transparency could affect public trust and TNB's reputation.

TNB is working closely with regulators to address stakeholder confidence considerations and will continue to assess these risks and explore appropriate mitigation measures. TNB's engagement with industry partners supports regulatory alignment, while transparent communication on safety, environmental management and readiness is undertaken in accordance with regulatory expectations. Stakeholder considerations are embedded within TNB's Corporate Risk Management Framework, ensuring responsible, sustainable and socially informed nuclear development aligned with Malaysia's energy transition objectives.

**IFRS  
S1**

# OUR COMMITMENT TO ADVANCING SUSTAINABILITY MANAGEMENT

THIS SECTION INCLUDES THE FOLLOWING:

<b>MT 7</b>	<b>ENERGY RELIABILITY AND AFFORDABILITY</b>	<b>116</b>
<b>MT 8</b>	<b>AIR QUALITY MANAGEMENT</b>	<b>122</b>
<b>MT 9</b>	<b>WASTE MANAGEMENT AND COAL ASH MANAGEMENT</b>	<b>129</b>
<b>MT 10</b>	<b>SAFETY, HEALTH AND WELL-BEING</b>	<b>142</b>



IFRS S1 MT 7 ENERGY RELIABILITY AND AFFORDABILITY



WHY IS IT IMPORTANT?

Reliable and affordable electricity is fundamental to Malaysia’s economic growth, social equity and overall quality of life. As the backbone of households, businesses and public services, electricity supply must remain dependable while tariffs are structured to be fair and transparent. These considerations are central to maintaining public confidence and reinforcing TNB’s role as the nation’s trusted electricity utility provider.

As Malaysia advances its energy transition, the electricity system is becoming increasingly complex, with growing demand and higher integration of renewable energy. Within this evolving landscape, TNB operates as a regulated utility, working closely with the Government and the Energy Commission (EC) to balance energy reliability, affordability and sustainability. This collaboration ensures that sector reforms and investments continue to support national development objectives while safeguarding customers from undue tariff volatility.

The Incentive-Based Regulation (IBR) framework, in place since 2014, provides the foundation for balancing the energy trilemma. Through multi-year regulatory periods, IBR has enabled sustained investment in grid infrastructure, improved system resilience, and transparent tariff-setting aligned with efficient costs and performance outcomes. The Government’s approval of Regulatory Period 4 (RP4), with RM42.8 billion in approved capital expenditure (inclusive of contingent CAPEX) for the period of 2025–2027, reflects continued policy support for strengthening grid reliability and enabling Malaysia’s energy transition.

Electricity tariffs in Peninsular Malaysia are determined by the EC within the IBR framework. The introduction of the Automatic Fuel Adjustment (AFA) mechanism further enhances cost transparency and responsiveness by allowing fuel cost variations to be reflected in tariffs in a timely manner. This approach helps stabilise electricity prices amid global fuel price volatility while maintaining affordability for customers. In addition, the Time-of-Use (TOU) option was introduced in 2025 for Domestic and Non-Domestic Low Voltage customers, empowering customers to better manage and optimise their electricity usage. As a national utility, we continue to work closely with the Government and regulators to educate the public and support the rakyat through extensive engagement initiatives, particularly in relation to rising fuel prices.

TNB remains committed to supporting the regulator in ensuring that the nation’s electricity supply remains reliable, sustainable and affordable while supporting long-term economic resilience.

OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Grid Modernisation to Enhance System Reliability, Energy Affordability and Customer Experience	Risk: Infrastructure Delivery Challenges that May Impede Grid System Reliability																				
<b>Description</b>	<p>TNB has the opportunity to enhance system reliability, energy affordability and customer experience by accelerating grid modernisation through technologies. Rising demand from emerging sectors such as data centres, EVs and broader electrification also presents a significant revenue opportunity, reinforcing TNB’s role as a provider of reliable and affordable electricity.</p> <p>With RM42.8 billion under RP4 regulated CAPEX, TNB is deploying advanced digital solutions and automation - including smart meters, automated substations, Volt-Var Optimisation, and Battery Energy Storage Systems (BESS).</p> <p>These technologies enable AI-driven monitoring, predictive maintenance, and automated network optimisation to enhance reliability, reduce losses, and improve operational efficiency, helping to moderate tariffs over time. They also strengthen grid readiness for higher renewable and distributed energy integration, including rooftop solar and battery storage. On the consumer side, smart meters and AI-powered platforms offer greater visibility and control, empowering energy savings, bill optimisation, and active demand participation.</p>	<p>The growing demand from energy-intensive customers, particularly data centers, is driving the urgent need for grid infrastructure enhancement. This rapid increase in demand may strain project delivery capacities, potentially leading to completion delays. The anticipated surge in the volume and complexity of infrastructure projects may impact project delivery resulting from potential gaps in contractor capability and readiness, along with increased coordination complexity impacting the efficiency of planning, permitting, construction and commissioning.</p> <p>While AI-driven technologies offer significant potential to enhance grid management, their adoption may also introduce new risk exposures and impact project delivery, as these technologies often require extensive data integration, validation and testing.</p>																				
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens end-to-end grid efficiency and resilience through modernised digital and physical infrastructure, supporting higher RE penetration and electrification growth.</li> <li>Enhances customer experience via improved reliability, reduced losses, and expanded digital services across TNB’s distribution and retail value chain.</li> </ul>	<ul style="list-style-type: none"> <li>Major electricity supply disruptions may weaken TNB’s reliability-based value proposition and customer experience.</li> </ul>																				
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Prioritises regulated CAPEX allocation toward digital grid technologies (smart meters, automation, Volt -Var optimisation), to deliver RP4/RP5 performance outcomes.</li> <li>Guides long-term planning for network readiness to support emerging load centres (data centres, EVs, distributed generation) and optimise operational performance through AI-enabled analytics.</li> </ul>	<ul style="list-style-type: none"> <li>Enhance project management through contractor capability development and adoption of digital and AI-enabled tools for scheduling and monitoring.</li> <li>Strengthen collaboration with regulators and local authorities to improve project approvals and delivery timelines.</li> </ul>																				
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Drives long-term EBIT uplift from regulated returns on modernisation investments and improved operational efficiencies.</li> <li>Supports stable and predictable cash flows through regulated revenue mechanisms while moderating system losses and deferring future network reinforcement costs.</li> </ul>	<ul style="list-style-type: none"> <li>Loss of revenue (sales of electricity) from electricity supply interruption.</li> </ul>																				
<b>Time Horizon</b>	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>CAPEX</td> <td>CAPEX</td> <td>CAPEX</td> <td>CAPEX</td> </tr> <tr> <td>RM0.5 bil – RM0.9 bil</td> <td>&lt;RM5 bil</td> <td>&lt;RM5 bil</td> <td>&lt;RM5 bil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	CAPEX	CAPEX	CAPEX	CAPEX	RM0.5 bil – RM0.9 bil	<RM5 bil	<RM5 bil	<RM5 bil	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>Unrealised Revenue RM0.69 mil</td> <td>Unrealised Revenue &lt;RM50 mil</td> <td>Unrealised Revenue &lt;RM50 mil</td> <td>Unrealised Revenue &lt;RM50 mil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	Unrealised Revenue RM0.69 mil	Unrealised Revenue <RM50 mil	Unrealised Revenue <RM50 mil	Unrealised Revenue <RM50 mil
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**GOVERNANCE IN ACTION**

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

The TNB Board provides strategic oversight on TNB’s performance based on the Incentive-Based Regulation (IBR) framework, including approving regulatory proposals prior to submission to the Energy Commission of Malaysia. This governance is crucial to ensuring capital investments are aligned with the nation’s socio-economic goals.

At the management level, the Regulatory Committee (RegC), chaired by the President/Chief Executive Officer (CEO), focuses on ensuring technical readiness and operational alignment with the national regulatory framework. The committee serves as a dedicated platform to monitor and ensure the effective implementation of regulatory requirements under the IBR framework. By harmonising TNB’s activities with national development objectives, the RegC provides the technical integrity and data-driven insights that support the Government’s vision for a resilient, transparent, and sustainable electricity supply industry.

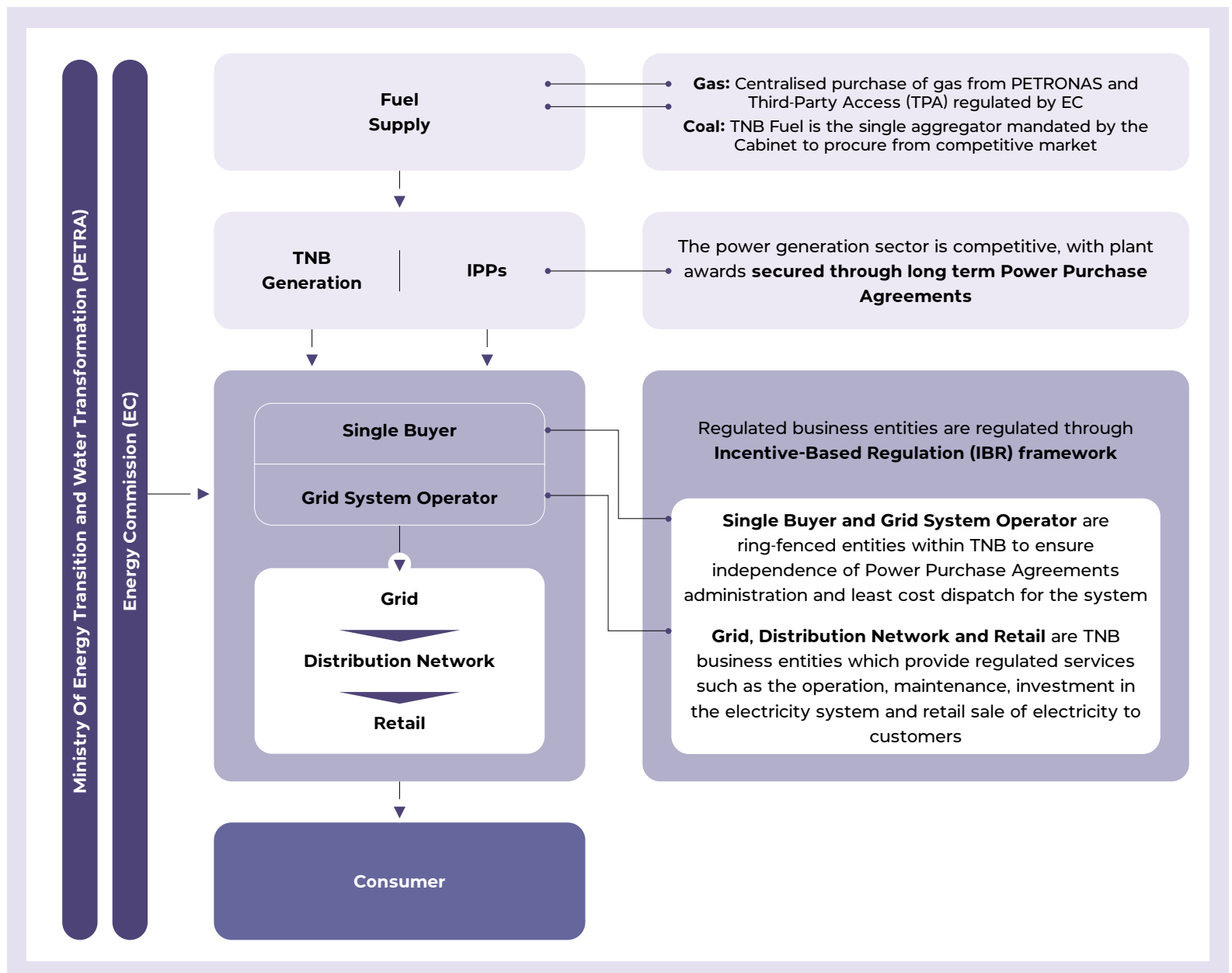
To complement the governance function while ensuring business continuity and uninterrupted power supply, we have established a Business Continuity Management (BCM) Framework, chaired by the CEO.

🔍 For more information on the BCM Framework, please refer to the Risk Management section on page 120.

**STRATEGY**

IFRS S1.29,30,31,33(a)(b)(c); IFRS S2.14(a)(b)(c); IF-EU-240a.4.1

Malaysia’s electricity sector has operated under the IBR framework for more than 10 years, a globally recognised approach used by regulators to manage infrastructure utilities. IBR is designed to encourage efficiency, optimise cost structures and ensure cost recovery for electricity and related services, particularly in sectors such as power transmission and distribution, where a single utility can deliver services more efficiently than multiple operators. By linking performance to incentives, IBR motivates utilities to enhance productivity, maintain high-quality service and invest prudently in critical infrastructure.



## ENERGY RELIABILITY AND AFFORDABILITY

### ENSURING RELIABLE SUPPLY

The implementation of the Incentive-Based Regulation (IBR) over the last three (3) Regulatory Periods has fundamentally shifted the focus towards a performance-driven culture, where maintaining a reliable supply is the primary benchmark of success. By placing stringent performance targets at the forefront of the regime, the IBR ensures that operational excellence is never static; it is a mandatory requirement that has consistently yielded world-class results. In 2025, TNB's performance remains at a world-class level, with SAIDI currently at 46.93 minutes, SAIFI at 0.95 occurrences and System Minutes at 0.1537 minutes. These outcomes serve as clear evidence that the framework effectively holds the utility accountable to the highest standards of service delivery.





In RP4 (2025-2027), investment is strategically channelled into reinforcing system resilience through grid modernisation and enhanced digital capabilities, ensuring the infrastructure keeps pace with evolving national needs. The IBR framework provides the necessary assurance that the electricity system remains both stable and forward-looking. By aligning capital investments with rigorous performance monitoring, the regime guarantees that the priority remains a dependable supply for all consumers, from residential households to large-scale industries.

### A FAIRER, TRANSPARENT AND AFFORDABLE TARIFF FOR RAKYAT MALAYSIA

The electricity tariff restructuring, effective 1 July 2025, represents a progressive step towards a more sustainable and equitable energy landscape for Malaysia. Driven by the strategic vision of the Ministry of Energy Transition and Water Transformation (PETRA) and the rigorous oversight of the EC, TNB facilitates an integrated pricing structure and rates with the established IBR framework. The electricity tariff structure ensures that the electricity system remains resilient while fulfilling its mandate to provide fair and transparent pricing for the *Rakyat*.

The electricity tariff restructuring is further strengthened by the improved cost-recovery mechanism, namely the Automatic Fuel Adjustment (AFA) mechanism, which allows for a more responsive and timely reflection of fuel and generation costs. This is essential for maintaining a sustainable energy ecosystem, as it significantly improves cash flow management and reduces the financial lag inherent in the previous model. By ensuring that costs are recovered in a more transparent and prompt manner, the AFA mechanism provides a more stable financial foundation for the utility to continue delivering high-performance service without compromising the nation's energy security.

There are four (4) key highlights of the electricity tariff restructuring, as illustrated below:

 <p><b>Simplified Voltage-Based Structure</b></p> <ul style="list-style-type: none"> <li>Moving away from activity-based tariffs to voltage-based tariffs</li> <li>5-tiered band pricing to 2-tiered band pricing for Domestic customers</li> </ul>	 <p><b>Extended Time-of-Use (ToU)</b></p> <ul style="list-style-type: none"> <li>Longer Off-Peak periods include Saturday, Sunday and Public Holidays</li> <li>Expansion to all registered TNB customers to switch to the ToU Tariff</li> </ul>	 <p><b>Incentives and Rebates</b></p> <ul style="list-style-type: none"> <li>Energy Efficiency Incentives channelled to targeted groups, encouraging energy conservation</li> <li>Rebates are maintained for eligible social institutions &amp; eKasih recipients</li> </ul>	 <p><b>Fair and Transparent Charges</b></p> <ul style="list-style-type: none"> <li>Clear breakdown of cost components for generating and delivering electricity</li> <li>Automatic Fuel Adjustment (AFA) on a monthly basis to reflect the market fuel prices and foreign exchange rates</li> </ul>
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Over 23 million *Rakyat* in Peninsular Malaysia, including vulnerable groups, will continue to have access to affordable electricity and benefit from the tariff restructuring as below:

**1 EXEMPTIONS FOR DOMESTIC CUSTOMERS**

Domestic customers consuming 600 kWh and below per month are exempted from the Retail Charge, AFA, and 8% Service Tax (ST), while those consuming 300 kWh and below are further exempted from the 1.6% Renewable Energy Fund (KWTBB) surcharge, helping to ease the cost burden on small families and budget-conscious consumers.

## 2 ENERGY EFFICIENCY INCENTIVE (EEI) FOR LOW TO MODERATE USAGE HOUSEHOLDS AND LOW USAGE BUSINESSES

To encourage energy conservation, the EE Incentive is provided to:

- Domestic customers with consumption of 1,000 kWh and below.
- Non-Domestic Low Voltage Customers with consumption of 200 kWh and below.
- The amount of EE Incentive varies based on total monthly consumption.

## 3 CONTINUOUS SUPPORT FOR VULNERABLE GROUPS

Registered households under the *Miskin Tegar* category in the *eKasih* system will receive a RM40 rebate on their monthly electricity bills, provided they have an active TNB Domestic account. If an eligible household does not have a TNB account under their name, they may still apply by declaring a third-party account. Applicants are required to complete the application form and submit it at the nearest *Kedai Tenaga*.

## 4 SUPPORT FOR SOCIAL INSTITUTIONS AND SPECIFIC BUSINESS ACTIVITY

The 10% electricity bill rebate remains available to eligible social institutions that meet the prescribed criteria and are registered with the Government and their respective governing bodies. These include:

### Welfare Organisations

Welfare institutions such as orphanages and elderly homes, homes for the blind and disabled and spastic centres that are fully funded and administered by the Ministry of Women, Family and Community Development or such institutions whose sources of income are funded by public donations.

### Educational Institutions

All government and private educational institutions that are fully or partially funded by the Government.

### Places of Worship

Places of worship registered under the Registrar of Societies and/or their respective religious governing bodies, such as State/Federal Islamic Religious Council/Department, Malaysian Buddhist Association, Malaysian Hindu Sangam, Sikh Naujawan Sabha, Sikh Youth Movement, *Buku Panduan Katholik* and *Buku Panduan Gereja Malaysia dan Brunei*.

 Read more about Electricity Tariff Restructuring at <https://www.mytnb.com.my/tariff> for the latest updates.

## STRATEGIC REGULATORY ENGAGEMENT AND PARTNERSHIPS

TNB consistently engages with regulatory stakeholders to enhance the governance framework of the electricity sector, ensuring a balanced approach to the energy trilemma of security, equity and sustainability. Through this collaborative process, our teams provide essential technical expertise and advocacy to ensure that national energy policies remain practical, implementable and aligned with long-term economic growth. By contributing to governmental studies and the refinement of policy formulation, we help shape a resilient energy landscape anchored in the core priority of providing a reliable and affordable electricity supply to the nation.

The strength of this partnership is reflected in the Regulatory Relationship Strength Index (RRSI), which gauges the sentiment and expectations of key ministries, regulators and government agencies. Building on a consistent upward trend since 2022, we continue to prioritise this engagement, with our latest RRSI performance recording a score of 96% against a target of 92%. This record level of trust, fostered by dedicated personnel at both federal and state levels, ensures that we can proactively address system challenges and maintain a high degree of collaboration, further strengthening the governance and performance of the national electricity provider.

## ENERGY RELIABILITY AND AFFORDABILITY

### RISK MANAGEMENT

IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c)

#### GRID MODERNISATION TO ENHANCE SYSTEM RELIABILITY

Grid modernisation is crucial to sustaining increasing electricity demand and supporting large-scale renewable energy integration in Malaysia in line with the national target of achieving 70% RE by 2050. TNB recognises the delivery and execution risks associated with the scale and technical complexity of these investments and proactively addresses them through structured planning, strengthened governance and disciplined execution.

To manage these risks, TNB is reinforcing network resilience through targeted grid reinforcement, asset lifecycle optimisation and the deployment of digital and AI-enabled solutions to enhance network visibility, demand forecasting and system control. Project delivery and contractor readiness are supported by enhanced governance and assurance processes, with effectiveness monitored through reliability and performance indicators such as System Minutes, SAIDI and SAIFI, alongside regular management reviews. These measures ensure that grid modernisation investments are delivered in a controlled manner, safeguarding a reliable electricity supply while enabling Malaysia's energy transition and long-term system resilience.

#### DRIVE REGULATORY EVOLUTION

The transition towards a lower-carbon economy and the ongoing evolution of the Malaysian electricity sector present an evolving regulatory environment that requires proactive management. Changes to energy policies, tariff structures, incentive mechanisms and market design are integral to aligning the sector with national climate commitments and socio-economic priorities. While these developments may influence investment planning and revenue visibility, TNB manages this dynamic landscape through structured regulatory engagement and disciplined strategic planning.

TNB actively collaborates with regulators and government agencies to support policy formulation and regulatory design that balance affordability, system reliability and long-term sustainability. Regulatory considerations are embedded into capital allocation, scenario planning and investment evaluation processes to ensure resilience under different policy pathways. Through this approach, TNB enhances investment certainty, supports orderly market evolution and positions its regulated business to remain financially sustainable while advancing Malaysia's energy transition objectives.

#### ROBUST BUSINESS CONTINUITY TO ENSURE OPERATIONAL RESILIENCE

TNB recognises that organisations today face a wide range of risks, from climate-related events and pandemics to cyber threats and geopolitical uncertainties. In the event of any disruption to electricity supply, our robust Business Continuity Management (BCM) Framework, aligned with ISO 22301 standards, is designed to activate immediately and manage the situation. Through systematic risk assessments and business impact analyses, we identify potential disruptions, evaluate their impact on customers, assets and the electricity system and implement mitigation measures to ensure operational resilience, maintain grid security and restore a reliable energy supply quickly.

In the event of any electricity supply disruption, TNB assesses the severity of the incident to determine the appropriate scale of response. A hierarchical command system ensures that action is proportionate, ranging from state- or business-entity-level responses for less severe incidents (Category 1 and 2) to full corporate-level activation for major disruptions (Category 3). The Corporate Crisis Response Team, led by a designated Crisis Commander, is mobilised to implement mitigation measures, maintain grid stability, protect employees and ensure a reliable electricity supply for customers.

##### Category 1

Crisis that impact operations in a State, Zone, Subzone, Power Station or Department level

##### Category 2

Crisis that impact operations of a Business Entity

##### Category 3

Crisis that impact TNB Group

## ENERGY RELIABILITY AND AFFORDABILITY

## ENSURING FUEL SECURITY

To ensure fuel security and maintain a reliable, uninterrupted power supply, we employ an integrated risk management strategy focused on diversifying the national energy mix and strengthening the fuel supply chain against global market volatility. For coal, we mitigate procurement and logistics vulnerabilities by expanding our sourcing reach to include non-traditional geographical regions such as the United States and Kazakhstan, while ensuring operational resilience through strict adherence to minimum stockpile requirements mandated under the Power Purchase Agreements.

Simultaneously, gas supply security is anchored by long-term Fuel Supply Agreements with PETRONAS and bolstered by the strategic utilisation of Regasification Terminals (RGTs) in Melaka and Johor, allowing the integration of imported Liquefied Natural Gas (LNG) to supplement domestic production. This security framework is further strengthened by the planned development of a third RGT in Peninsular Malaysia.

## OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>ENERGY AFFORDABILITY</b>								
<b>Average Retail Electric Rate for All Customers</b>								
IF-EU-240a.1	Peninsular Malaysia	sen/kWh	-	-	45.40	-	-	Base electricity tariff for Peninsular Malaysia set by Energy Commission
	Sabah	sen/kWh	-	-	31.49	-	-	
<b>Residential</b>								
IF-EU-240a.1	Peninsular Malaysia	sen/kWh	-	-	33.25	-	-	
	Sabah	sen/kWh	-	-	34.25	-	-	
<b>Non-Residential (Includes Commercial, Industrial, Agriculture, Mining and Others)</b>								
IF-EU-240a.1	Peninsular Malaysia - Non-Domestic LV	sen/kWh	-	-	51.55	-	-	
	Peninsular Malaysia - Non-Domestic MV	sen/kWh	-	-	49.00	-	-	
	Peninsular Malaysia - Non-Domestic HV	sen/kWh	-	-	49.00	-	-	
IF-EU-240a.1	Peninsular Malaysia - Non-Domestic UHV	sen/kWh	-	-	60.93	-	-	
	Sabah - Commercial	sen/kWh	-	-	32.46	-	-	
	Sabah - Industrial	sen/kWh	-	-	27.75	-	-	
<b>EFFECTIVE STAKEHOLDER ENGAGEMENT</b>								
<b>Regulatory Relationship</b>								
N/A	Regulatory Relationship Strength Index (RRSI)	%	92	94	96	>92	-	

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

IFRS S1 MT 8 AIR QUALITY MANAGEMENT



WHY IS IT IMPORTANT?

At TNB, toxic emissions originate primarily from thermal power generation. As we transition our generation portfolio, we continue to invest in innovative solutions to enhance air quality where our assets operate. We uphold strong environmental stewardship by ensuring that emissions of carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>) and particulate matter are controlled within regulatory parameters.

All TNB thermal power plants operate in compliance with applicable air quality standards and regulatory permit limits, supported by continuous emissions monitoring, robust engineering controls and standardised reporting. Recognising the potential long-term impacts on both the environment and public health, we focus on managing and reducing emissions at our power plants through continuous emissions monitoring, robust engineering controls and strict compliance with applicable air quality standards. Existing mitigation measures include the deployment of emissions control technologies, optimisation of combustion processes and standardised monitoring and reporting supported by verified data.

Additionally, we are committed to reducing toxic emissions from our vehicle operations through phased electrification of our fleet. Our targets include achieving 30% fleet electrification by 2030, which reflects our planned approach to control and mitigate toxic emissions across all our operations, while also enhancing operational efficiency and supporting sustainable mobility.

OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Enhancing Air Quality Through Transition to Cleaner Fuels				Risk: Operational and Technological Challenges in Reducing Fossil Fuel Dependency and Improving Air Quality			
Description	<p>TNB has the opportunity to enhance air quality and strengthen regulatory resilience by transitioning its generation portfolio from coal to cleaner fuels such as natural gas and biomass, supported by phased coal retirement and selective co-firing during the transition period. This transition materially reduces emissions of sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), and other regulated pollutants that are subject to increasingly stringent enforcement under the Environmental Quality (Clean Air) Regulations 2014.</p> <p>As environmental standards tighten and enforcement actions intensify, continued reliance on coal generation increases. TNB's exposure to penalties, compliance breaches, and operational restrictions imposed by the Department of Environment (DOE). By accelerating fuel transition and reducing coal utilisation, TNB can proactively avoid recurring penalty costs, unplanned compliance expenditures, and regulatory disruptions, while supporting national decarbonisation objectives under RT 2.0. Building on this, TNB will also progressively retire all coal plants by 2045 with no new coal capacity, transitioning towards a cleaner generation mix dominated by gas and renewables.</p>				<p>With ongoing efforts to reduce dependency on fossil fuel such as coal and improve air quality, operational and technological challenges persist, compromising the effectiveness of initiatives aimed at enhancing thermal power plant efficiency and achieving a successful transition toward lower-emissions fuels.</p> <p>Initiatives to improve thermal power plant efficiency are limited by aging equipment, design, and part-load operations, which reduce thermal performance and increase SO<sub>x</sub>, NO<sub>x</sub>, and particulate matter emissions to the atmosphere. Furthermore, co-firing with ammonia or biomass faces significant technical challenges (such as combustion stability and boiler compatibility) and commercial barriers (such as high fuel cost and unstable supply), collectively impeding TNB's clean fuel transition and air quality improvement goals.</p> <p>Additionally, increasingly stringent environmental regulations are anticipated, which will require TNB to manage higher compliance costs while proactively explore technological solutions.</p>			
Impact on Business Model & Value Chain	<ul style="list-style-type: none"> <li>Improves operational sustainability and reduces environmental liabilities by lowering SO<sub>x</sub>, NO<sub>x</sub>, CO, and particulate emissions across generation assets.</li> <li>Enhances plant performance and regulatory compliance through cleaner fuels, heat rate optimisation and co-firing solutions, supporting long-term system reliability.</li> </ul>				<ul style="list-style-type: none"> <li>Impedes the transition of fossil fuel generation sources to clean energy.</li> <li>Undermines TNB's operational sustainability and reduce stakeholders' confidence in its sustainability and eco-efficiency value proposition.</li> </ul>			
Effect on Strategy & Decision Making	<ul style="list-style-type: none"> <li>Guides prioritisation of fuel diversification (gas, biomass, ammonia co-firing) and efficiency improvement programmes to meet air-quality standards and national decarbonisation targets.</li> <li>Supports strategic planning for coal retirement and transition toward a cleaner generation mix aligned with RT 2.0 and long-term emissions reduction pathways.</li> </ul>				<ul style="list-style-type: none"> <li>Implement targeted power plant efficiency improvement programmes and adopt phased air quality improvement initiatives, including co-firing.</li> <li>Ensure alignment with the Environmental Quality (Clean Air) Regulations 2014 to support decarbonisation and regulatory compliance.</li> </ul>			
Effect on Financial Performance, Position & Cash Flow	<ul style="list-style-type: none"> <li>Delivers financial value through avoidance of DOE penalties, fines, and unplanned compliance costs associated with emissions exceedances.</li> <li>Strengthens long-term financial resilience by moderating compliance-related costs and reducing exposure to future air-quality regulations as coal assets retire.</li> </ul>				<ul style="list-style-type: none"> <li>Higher operating costs arising from DOE charges imposed for exceeding permitted emissions limits.</li> </ul>			
Time Horizon	Current	Short	Medium	Long	Current	Short	Medium	Long
Anticipated Effect on Financial Position	-	-	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	-	-	Cost Increase <RM50 mil	Cost Increase <RM50 mil

## GOVERNANCE IN ACTION

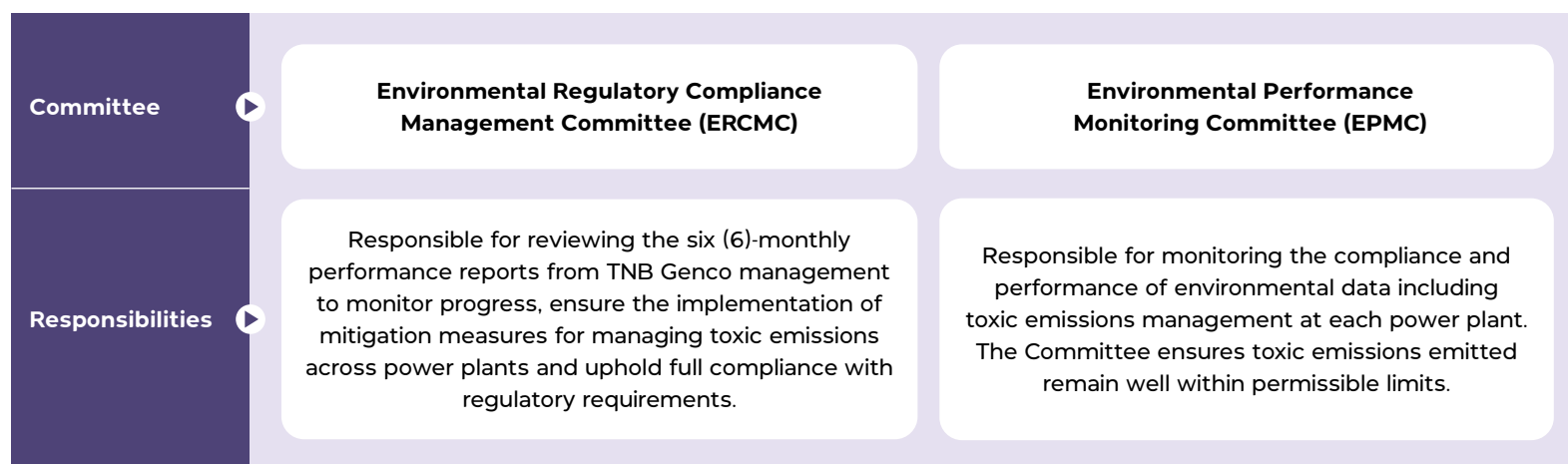
IFRS S1.27(a)(b); IFRS S2.6(a)(b)

The Board Sustainability and Risk Committee (BSRC) oversees the implementation of the TNB Sustainability Framework, including the implementation of air quality management and toxic emissions reduction initiatives.

At the management level, the Sustainability & Energy Transition Committee (SETC) plays a central role in overseeing air quality management, ensuring full compliance with regulatory requirements while advancing TNB's broader sustainability ambitions. The Committee provides strategic oversight to drive continuous improvement in emissions performance and alignment with evolving environmental standards. In parallel, the TNB Electric Vehicle Committee (EVC) steers and accelerates the Group's fleet electrification programme, reinforcing TNB's commitment to improving air quality and supporting the transition to low-carbon mobility. The EVC establishes clear strategic direction, governance and accountability to ensure the effective and timely delivery of sustainable mobility initiatives.

Both the SETC and EVC are chaired by the TNB President/Chief Executive Officer and comprise members of TNB's senior leadership team, reflecting strong top-level commitment and integrated decision-making in advancing TNB's sustainability and energy transition agenda.

At the operational level, the air quality management efforts are embedded within business operations through the governance structure outlined below:



## ADHERENCE TO JURISDICTIONAL LAWS & REGULATIONS AND POLICY

We comply with the Environmental Quality Act 1974 (Amendment 2024) and the Environmental Quality (Clean Air) Regulations 2014. Compliance with these regulations forms a core element of our governance process, ensuring that all operational sites meet statutory toxic emissions limits, including Nitrogen Oxides (NO<sub>x</sub>), Sulphur Oxides (SO<sub>x</sub>), Carbon Monoxide (CO) and Particulate Matter (PM), maintaining robust air quality monitoring systems and reporting performance transparently in accordance with regulatory requirements.

The TNB Environmental Policy establishes the foundation for our environmental stewardship, outlining clear commitments to pollution prevention and compliance with applicable environmental laws. The policy provides strategic direction to all business entities, ensuring a consistent and disciplined approach to air quality management, ecosystem protection and the integration of sustainability principles into corporate governance and operational decision-making.

 For more information on the TNB Environmental Policy, please refer to the website [https://www.tnb.com.my/assets/files/TNB\\_Environmental\\_Policy\\_2023.pdf](https://www.tnb.com.my/assets/files/TNB_Environmental_Policy_2023.pdf)

## STRATEGY

IFRS S1.29, 30, 31, 33(a)(b)(c); IFRS S2.14(a)(b)(c)

We recognise the need for tailored strategies and mitigation approaches to effectively manage the environmental impacts from two (2) primary sources of air toxic emissions, which are power generation activities and company fleet operations.

From a fuel mix perspective, coal-fired generation remains the primary source of SO<sub>x</sub> and PM emissions, due to the inherent characteristics of coal combustion and fuel composition. In addition, coal plants emit NO<sub>x</sub>, with emission levels influenced by boiler design, combustion practices and the effectiveness of installed emission control technologies.

Gas-fired generation produces negligible SO<sub>x</sub> and PM emissions due to the cleaner nature of the fuel. However, NO<sub>x</sub> remains the primary regulated pollutant, formed during high-temperature combustion in gas turbines. CO emissions are typically low under stable operating conditions, but may increase temporarily during start-up, shutdown or rapid load fluctuations.

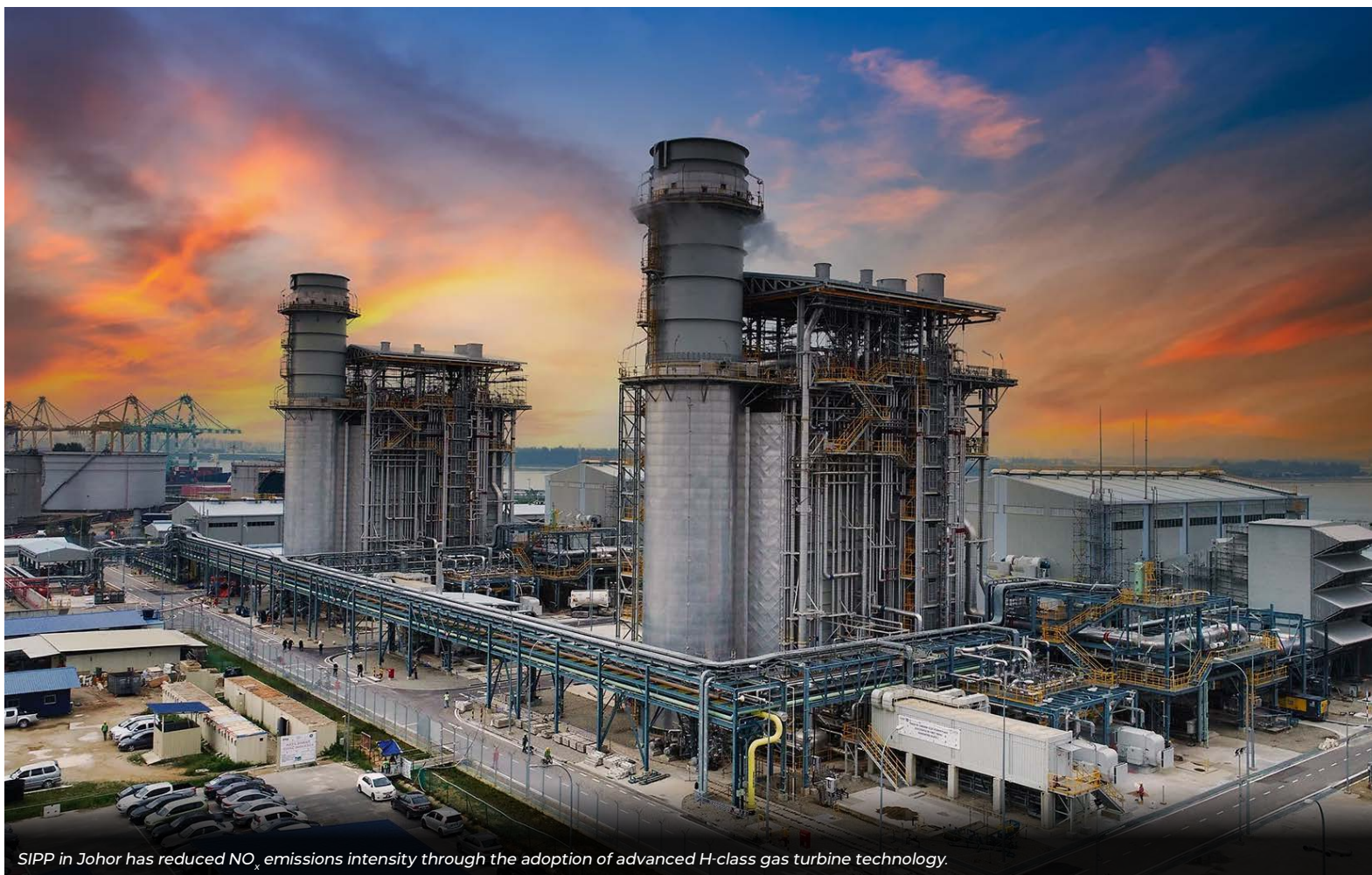
Renewable energy assets, including hydro and solar, do not generate toxic air emissions during operation and therefore do not contribute to SO<sub>x</sub>, NO<sub>x</sub>, PM or CO emissions.

## AIR QUALITY MANAGEMENT

### EMISSIONS REDUCTION THROUGH HIGH-EFFICIENCY GENERATION TECHNOLOGIES

Within coal-fired generation, we have progressively shifted away from lower-efficiency subcritical technology towards ultra-supercritical coal plants, which operate at higher steam temperatures and pressures and achieve significantly improved thermal efficiency. Ultra-supercritical units adopted at M4 and M5 *Stesen Janakuasa Sultan Azlan Shah (SJSAS)* and *Stesen Janakuasa Tuanku Muhriz (SJTM)* achieve efficiency levels of up to approximately 47%, thereby reducing fuel consumption per megawatt-hour and lowering the formation intensity of SO<sub>x</sub>, NO<sub>x</sub>, PM or CO emissions. When integrated with modern flue gas treatment systems, these plants deliver the lowest toxic emissions profile among coal technologies, providing a structurally lower-emissions pathway for coal-fired generation and supporting sustained, concentration-based emissions reductions across our coal fleet.

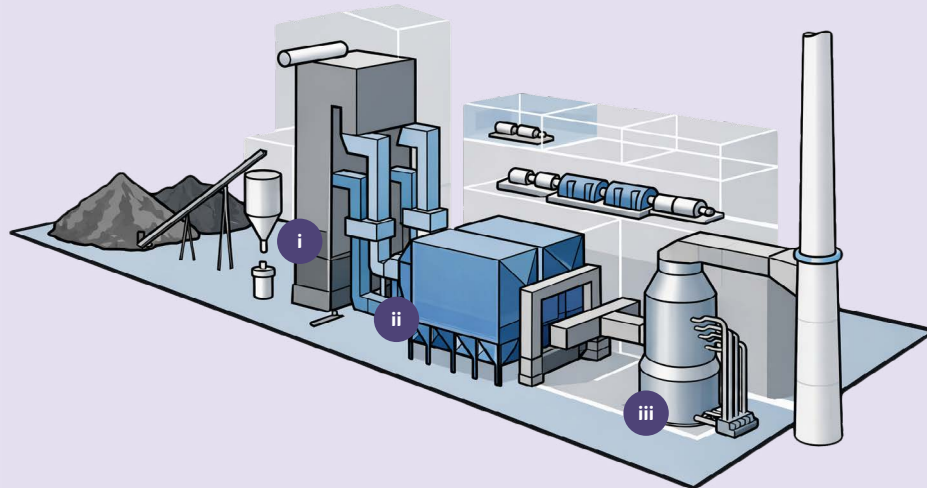
For gas-fired generation, our strategy similarly prioritises advanced gas turbine technology to improve emissions performance. While F-class gas turbines provide high efficiency and low emissions when equipped with dry low-NO<sub>x</sub> combustors, we have adopted advanced H-class gas turbine technology at Sultan Ibrahim Power Plant (SIPP) to further enhance performance. H-class technology operates at higher firing temperatures and pressures, enabling combined-cycle efficiencies of up to approximately 62% and more stable combustion conditions. These characteristics reduce fuel consumption per unit of electricity generated and reduce NO<sub>x</sub> emission levels by up to 40% compared to F-class gas turbine technology, particularly under baseload and steady-state operating conditions.



*SIPP in Johor has reduced NO<sub>x</sub> emissions intensity through the adoption of advanced H-class gas turbine technology.*

## LEVERAGING ADVANCED AIR POLLUTION CONTROL TECHNOLOGIES AT POWER PLANTS

TNB Genco leverages the following advanced air pollution control technologies, which are installed as primary and post-combustion mechanisms to minimise the environmental impact of its coal-fired and gas-fired plant operations.



### i LOW NO<sub>x</sub> BURNERS

Most of TNB Genco's gas-fired plants and supercritical coal-fired plants are equipped with Low NO<sub>x</sub> Burners (LNB) as a primary combustion control mechanism to reduce NO<sub>x</sub> formation during combustion. In coal-fired plants, LNB technology uses staged combustion to control fuel and air mixing, thereby lowering flame temperature and minimising NO<sub>x</sub> emissions while maintaining operational efficiency. In gas-fired plants, LNB technology applies premixed or staged combustion, as well as Flue Gas Recirculation (FGR) to achieve stable low-temperature combustion. The adoption of LNB technology enables the reduction of NO<sub>x</sub> emissions from the power plants, while also improving plant efficiency and supporting compliance with emissions standards.

### ii ELECTROSTATIC PRECIPITATORS (ESP)

Electrostatic Precipitators (ESP) have been installed at all our coal-fired power plants as a post-combustion control mechanism to remove harmful particulate matter from flue gas using electrically charged plates or electrodes before it is released into the atmosphere.

### iii THE FLUE GAS DESULPHURISATION (FGD)

Flue Gas Desulphurisation (FGD) systems have been installed across all TNB supercritical and ultra-supercritical coal-fired power plants, as a post-combustion control mechanism to manage SO<sub>x</sub> emissions. The FGD system operates by treating flue gas downstream of the boiler, where sulphur compounds are chemically absorbed and removed before the gas is discharged into the atmosphere. Equipped with automated process controls and continuous monitoring, the system ensures stable removal efficiency under varying operating conditions. The widespread adoption of FGD has significantly reduced SO<sub>x</sub> emissions concentrations across the coal fleet, enabling our coal-fired plants to consistently comply with applicable SO<sub>x</sub> emissions standards and support effective toxic emissions management.

## AIR QUALITY MANAGEMENT

### IMPLEMENTATION OF ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)

We adopt an Environmental Management System (EMS) at our operational sites to systematically manage environmental performance, including air quality and emissions control. All of our power plants are certified with EMS I :2015. The EMS provides a structured framework for identifying environmental aspects, assessing potential impacts and implementing mitigation and control measures. Through this system, we ensure that operational activities, particularly those related to toxic emissions and ambient air quality monitoring, are aligned with company policies and national environmental standards.

To maintain high standards of our environmental performance, we carry out yearly environmental audits and site assessments, for all our power plant operations. These audits evaluate the adequacy of pollution control systems, identify potential areas of non-compliance and recommend corrective or preventive actions. This process supports continual improvement while ensuring readiness for regulatory inspections and third-party verification.

### CONTINUOUS AIR EMISSIONS AND AMBIENT AIR QUALITY MEASUREMENT AND MONITORING

The Continuous Emissions Monitoring System (CEMS) or Predictive Emissions Monitoring System (PEMS), installed at all coal and gas power plants, provides continuous direct measurement and monitoring of toxic emissions released from stacks, as well as periodic ambient air quality reporting to ensure that pollutant concentrations remain within permissible limits. Monitoring data are compiled and reported to the DOE on a scheduled basis, thereby demonstrating transparency and accountability in emissions management.



*CEMS undergoing performance verification to ensure accurate and reliable toxic emissions data.*

### OPERATIONAL SUPERVISION BY COMPETENT PERSONS (CP)

Competent Persons (CP), certified by the DOE, are employed at all our coal-fired power plants to supervise the operation of the air pollution control systems, including bag filter and scrubber operations. The CP is also responsible for the effective implementation of emissions reduction measures and maintaining compliance with applicable regulatory requirements. In 2025, there are 18 Certified Environmental Professionals in Bag Filter Operation (CePBFO) and 24 Certified Environmental Professional in Scrubber Operation (CePSO). Their expertise enables proactive monitoring, timely intervention and the prompt mitigation of potential air pollution incidents.

### NO NEW COAL-FIRED POWER PLANTS COMMITMENT

In line with TNB's Energy Transition Plan, we have committed to ceasing investments in new coal-fired power plants since 2021. This commitment ensures that no new coal-related toxic emissions, including SO<sub>x</sub> and PM, will be introduced into the generation portfolio. By preventing future exposure to coal-related emissions risks, this strategic decision reduces long-term regulatory, environmental and reputational risks, supports the progressive decarbonisation of the generation mix and reinforces our pathway towards a lower-emissions future. We have also established a coal retirement pathway that prioritises the progressive retirement of older, subcritical coal-fired units. The phased retirement of these units is expected to deliver a material reduction in toxic emissions through the permanent removal of higher-emitting assets from the fleet.

### SHIFT TOWARDS HIGH-EFFICIENCY GAS TURBINE

As natural gas plays a critical role as a transition fuel in Malaysia's low-carbon energy pathway, we continue to invest in high-efficiency combined-cycle gas turbine (CCGT) capacity. At SJP and SIPP, the installation of high-efficiency gas turbines, achieving efficiencies of 54.16% and 56.49% respectively, have significantly mitigated toxic emissions impacts on surrounding air quality. These efforts will continue with the upcoming 1,400 MW hydrogen-ready plant in Paka and a 2,100 MW CCGT facility in Kapar.

### CONTINUOUS STAKEHOLDER ENGAGEMENT

We integrate community feedback, NGO participation and local stakeholder input into our air quality risk identification process. This approach helps us understand air quality issues from both technical and community perspectives, supporting early identification of concerns, fostering constructive dialogue and maintaining stakeholder trust.

### FLEET ELECTRIFICATION STRATEGY

Emissions from our company vehicles account for less than 1% of our total GHG footprint and toxic emissions. However, fleet electrification remains a priority and has been embedded into our operational transformation. It also serves a cost-effective decarbonisation lever within our transition strategy. We have set a 30% target for the electrification of our operational fleet of 4,780 vehicles by 2030, covering passenger vehicles, pickups, vans, motorcycles and specialised units. In 2025, we achieved 8.4%, through the deployment of 401 EVs, comprising 301 technical operational vehicles and 100 corporate vehicles, demonstrating early progress towards achieving our fleet decarbonisation targets.

### OPTIMISED VEHICLE MAINTENANCE FOR EFFICIENCY AND COMPLIANCE

For company fleet vehicles, air quality-related risks are identified through fleet emissions inspections. We manage these risks through a preventive and predictive vehicle maintenance programme, including regular inspections, filter replacements and emissions system checks supported by digital monitoring to identify issues early. All applicable vehicles undergo mandatory inspections by PUSPAKOM, Malaysia's accredited vehicle inspection authority. In parallel, we are progressively transitioning our fleet towards low-emissions alternatives, with the target of 30% electric vehicles by 2030.

## AIR QUALITY MANAGEMENT

### RISK MANAGEMENT

IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c)

Air quality risks are identified, evaluated and prioritised based on their potential environmental, operational and social impacts through the integration of technical assessments and stakeholder considerations.

We continue to assess risks related to air quality through continuous emissions data analysis, performance of air pollution control systems and compliance checks against the requirements of the Environmental Quality (Clean Air) Regulations 2014.

Through continuous risk assessment and rigorous performance monitoring, we consistently maintain toxic emissions from our generation fleet within regulatory limits. Building on these efforts, we actively pursue targeted initiatives to further reduce emissions and enhance air quality, in line with our broader sustainability objectives and commitment to responsible operations.

Legend ● Moderate Contribution Across All Toxic Emissions Parameters ● Low

Asset	Toxic Emissions Risk Exposure	Toxic Emissions Level Assessment	Risk Exposure After Mitigation
<b>Coal-fired Power Plant</b>	<span style="color: orange;">●</span>	All toxic emissions from plant operations are consistently maintained within regulatory limits by DOE. Real-time emissions data are transmitted to DOE	<span style="color: green;">●</span>
<b>Gas-fired Power Plant</b>	<span style="color: orange;">●</span>		<span style="color: green;">●</span>
<b>Hydroelectric Plant</b>	No contribution across all toxic emissions parameters	No contribution	No risk
<b>Wind and Solar Farm</b>	No contribution across all toxic emissions parameters	No contribution	No risk

### OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>AIR QUALITY</b>								
<b>Significant Air Emissions</b>								
IF-EU-120a.1	Sulphur Oxides (SO <sub>x</sub> )	Metric tonnes	34,977.44	115,697.86	111,140.00	-	-	Starting in FY2024, the toxic loading value incorporates a revised methodology.
GRI 305-7	Particulate matter (PM)	Metric tonnes	6,539.63	6,347.45	6,463.00	-	-	Increased emissions due to an increased coal capacity factor.
Bursa S4(a) [Emissions - Air quality/ Pollution]	Nitrogen Oxides (NO <sub>x</sub> )	Metric tonnes	41,936.32 <sup>1</sup>	76,458.23	71,604.00	-	-	Starting in FY2024, the toxic loading value incorporates a revised methodology.
	Lead (Pb)	Metric tonnes	-	-	Not Applicable	-	-	-
	Mercury (Hg)	Metric tonnes	-	-	Not Detected	-	-	The concentration of mercury emitted is too small and negligible.
<b>Percentage of Pollutants Near Dense Area</b>								
IF-EU-120a.1	Sulphur Oxides (SO <sub>x</sub> )	%	-	-	100	-	-	Dense area is defined, according to the SASB standard, where area with a population of >50,000 people is considered.
	Particulate matter (PM)	%	-	-	100	-	-	
	Nitrogen Oxides (NO <sub>x</sub> )	%	-	-	100	-	-	
	Lead (Pb)	%	-	-	Not Applicable	-	-	Near is defined, according to the SASB standard, as where emissions polluting entities are located within 49 km of a dense area
	Mercury (Hg)	%	-	-	Not Applicable	-	-	

<sup>1</sup> Updated calculated number

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

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## WASTE MANAGEMENT AND COAL ASH MANAGEMENT



## WHY IS IT IMPORTANT?

We are committed to embedding responsible waste management practices across our operations as part of our broader environmental stewardship efforts. As Malaysia's largest electricity utility, we prioritise waste minimisation and the adoption of stringent waste management measures to reduce environmental impacts and ensure compliance with applicable national regulations. Anchored by our TNB Environmental Policy and supported by our Health, Safety and Environmental Management System (HSEMS) and ISO 14001:2015 Environmental Management Systems (EMS), we apply a systematic approach to managing environmental risks and overseeing the proper handling, segregation, treatment and disposal of hazardous and non-hazardous waste.

As part of our ongoing energy transition, we continue operating coal-fired power plants until their planned retirement to ensure continued energy security and reliability of supply. We recognise that coal ash contributes approximately 97% of our total waste generation and remain committed to enhancing our management practices to reduce its environmental impact. In line with our circular economy aspirations, we actively promote the beneficial reuse of coal ash through recycling initiatives that transform waste into useful products such as concrete materials, cable trench covers and wallboards. These efforts help reduce disposal requirements while supporting more efficient resource utilisation. We maintain robust operational controls, including secure storage, regular inspections, continuous monitoring and transparent reporting to uphold environmental compliance and minimise risks effectively as a forward-looking and sustainable energy leader.

## OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Transforming Waste and Ash Management Through Coal Phase-Out and Cleaner Generation	Risk: Delayed Coal-to-Gas Transition May Elevate Coal Ash Management Risks						
<b>Description</b>	<p>TNB has the opportunity to reduce waste from ash by replacing coal-fired generation with natural gas and other clean technologies. Currently, fly ash and bottom ash from TNB's coal-fired power plants constitute approximately 99% of the Group's total hazardous waste, requiring storage, transport and disposal. By transitioning to gas-based power plants, TNB can eliminate ash generation entirely, reducing environmental risks from ash ponds and land use for disposal sites.</p> <p>During the transition period, TNB can further enhance circularity through beneficial reuse of coal by-products, such as repurposing fly ash in cement and construction materials and by improving ash containment systems to prevent contamination of nearby land and waterways. For example, <i>Stesen Janakuasa Sultan Azlan Shah (SJSAS)</i> has successfully supplied processed fly ash for the local construction industry, showcasing how waste can be transformed into valuable input materials. By 2045, as all coal plants are retired in line with Power Purchase Agreements, TNB's generation portfolio will eventually be ash-free, significantly reducing waste management costs and environmental liabilities.</p>	<p>In line with national aspirations, TNB aims to accelerate the coal-to-gas transition to support the energy transition and reduce waste generation. Currently, fly ash and bottom ash from TNB's coal-fired power plants constitute approximately 99% of the Group's total hazardous waste.</p> <p>A slower-than-expected transition prolongs reliance on coal, increasing the volume of ash that requires management and raising the risk of higher disposal costs. In addition, ineffective coal ash handling may lead to potential regulatory breaches and environmental damage.</p> <p>Notwithstanding, TNB places strong emphasis on effective waste management practices, ensuring compliance with environmental standards and responsible ash handling. As a result, the overall risk exposure remains nominal despite the high volume of coal ash generated.</p>						
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Converts coal ash from a regulated waste liability into a value-generating by-product through recycling and commercial reuse, creating incremental non-regulated revenue streams.</li> <li>Strengthens downstream value chain integration with cement, construction, and infrastructure sectors, while reducing reliance on landfill disposal and associated operational risks.</li> </ul>	<ul style="list-style-type: none"> <li>Impedes the transition of fossil fuel generation sources to clean energy.</li> <li>Undermines TNB's operational sustainability and reduces stakeholder's confidence in its sustainability and eco-efficiency value proposition.</li> </ul>						
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Prioritises coal ash recovery, quality assurance and market development as part of the coal phase-down and transition strategy.</li> <li>Guides investment and partnerships in ash processing, logistics and off-take arrangements to maximise recycling rates and monetisation during the transition period.</li> </ul>	<ul style="list-style-type: none"> <li>Accelerates coal-to-gas transition planning and enhance ash management practices to meet regulatory expectations.</li> <li>Explores alternative fuels to reduce coal dependency and support Malaysia's broader energy transition.</li> </ul>						
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Generates recurring revenue from coal ash recycling and sale of by-products, partially offsetting declining coal-related margins during the transition.</li> <li>Improves cash flow and cost structure by reducing ash handling, transport and disposal expenses while lowering long-term environmental and regulatory liabilities.</li> </ul>	<ul style="list-style-type: none"> <li>Higher operating costs resulting from increased disposal costs and regulatory compliance expenses.</li> </ul>						
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Revenue RM33.3 mil	Revenue <RM50 mil	Revenue <RM50 mil	–	–	–	Cost Increase <RM50 mil	–

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

### GOVERNANCE IN ACTION

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

The TNB Board and the Board Sustainability and Risk Committee (BSRC) oversee the implementation and effectiveness of our waste management and resource efficiency strategies in achieving our sustainability commitments and creating value.

At the management level, the Sustainability & Energy Transition Committee (SETC), chaired by the President/Chief Executive Officer and comprising TNB's top management, ensures the integration of waste management, coal ash management and resource efficiency into strategic decision-making processes, embedding sustainability principles across all business operations. Through regular performance reviews, the SETC ensures that these initiatives strengthen our long-term business resilience and operational excellence.

At the operational level, the Health, Safety and Environment Committee (HSEC) establishes and enforces operational controls for waste and coal ash management, ensuring that approved strategies and initiatives are effectively implemented, monitored and translated into on-the-ground actions in full compliance with regulatory requirements.

### ADHERENCE TO JURISDICTIONAL LAWS & REGULATIONS AND POLICY

IF-EU-150a.3.1.2

We ensure our waste management practices comply with the jurisdictional laws and regulations in the respective countries where we operate. In Malaysia, we comply with the Environmental Quality Act 1974 (as amended in 2024) and the Environmental Quality (Scheduled Wastes) Regulations 2005 for waste and coal ash management.

The TNB Environmental Policy provides a structured framework that guides us in mitigating potential environmental impacts and reinforces our commitment to comply with national waste management law and regulations. We strive to drive and practise end-to-end waste management principles that promote waste reduction and recycling to minimise disposal and environmental pollution.

For more information on the TNB Environmental Policy, please refer to the website [https://www.tnb.com.my/assets/files/TNB\\_Environmental\\_Policy\\_2023.pdf](https://www.tnb.com.my/assets/files/TNB_Environmental_Policy_2023.pdf) here.

### STRATEGY






IFRS S1.29, 30, 31, 33(a)(b)(c); IFRS S2.14(a)(b)(c)

We have implemented a comprehensive waste management strategy to address waste across our operations, as we manage two (2) types of waste categorised as hazardous and non-hazardous waste, each requiring tailored handling to minimise environmental impact. Although the management approaches differ based on the waste type, both are guided by the same overarching objectives, which are to reduce waste generation, increase recycling rates and ensure safe disposal in full compliance with national environmental regulations.

### CATEGORY-BASED WASTE MANAGEMENT STRATEGY (WMS)

In 2026, we have adopted a category-based Waste Management Strategy (WMS) in phases, which is designed to ensure that each waste stream is managed according to its types and the relevant regulatory requirements, if any. Given the range of waste streams generated, we adopt a category-based approach to ensure each type of waste is managed according to its characteristics and appropriate treatment requirements. Waste is assessed and handled in line with applicable 4R principles, namely Reduce, Reuse, Recycle and Recovery, with safe disposal applied only where 4R principles are not feasible.

With the category-based WMS, we aim to reduce 20% of the total waste generated by 2030 and to achieve 50% of the annual recycling rate by 2030 from a 2023 baseline.

Waste Hierarchy	Definition
<b>REDUCE</b> 	Reduce waste directed to landfill. <b>Example:</b> No single used plastic policy.
<b>REUSE</b> 	The practice of using items more than once in their original form to extend their lifespan, with no additional processing, for the same or a new purpose. <b>Example:</b> Using a worn-out tire as a flowerpot or reusing a shopping bag.
<b>RECYCLE</b> 	Processing waste materials into new products or raw materials through mechanical or chemical methods. <b>Example:</b> Recycling of tins, glass and paper into a new product.
<b>RECOVERY</b> 	Extracting useful materials from waste, typically through processes such as material recovery, oil regeneration or chemical reclamation. <b>Example:</b> Recovery of metals from cables through metal recovery processes.
<b>SAFE DISPOSAL</b> 	Controlled and responsible disposal of waste to approved landfill sites, ensuring minimised risks to human health, animals or the environment.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

## HAZARDOUS WASTE MANAGEMENT

At TNB, our primary aim is to prevent generation of waste that will be directed to landfill. In 2025, hazardous waste contributed 99.85% of our total waste, which comprises different types of hazardous waste, as below.

Hazardous Waste	Amount (MT)
Coal ash	981,530.80
Used equipment – Transformer/switchgear	7,320.14
Transformer oil	1,705.65
E-Waste	8,601.90
Others	11,594.99
<b>Total</b>	<b>1,010,753.47</b>

When hazardous waste is unavoidable in our operations, we manage it responsibly through strict and effective measures. With our robust end-to-end waste management practices and proactive waste prevention initiatives, we are committed to minimising environmental impact and promoting sustainable waste management. Our hazardous waste management practices fully comply with the Environmental Quality (Scheduled Wastes) Regulations 2005. Hazardous waste follows a standardised management process, as outlined below.



## COAL ASH MANAGEMENT

Coal ash contributes approximately 97% of total TNB waste. Ash, including fly ash and bottom ash, is a by-product of coal combustion for electricity generation. Both fly ash and bottom ash are classified as hazardous waste under Malaysia's Environmental Quality (Scheduled Wastes) Regulations 2005, requiring careful management to prevent environmental impact. Fly ash is a fine, powdery material captured from flue gases using filtration systems. It contains silica, alumina, iron oxide and traces of unburnt carbon and is often reused in cement and concrete to enhance strength and durability. Bottom ash is heavier, settles at the furnace bottom and can be used in construction, including road base materials and structural fills. Both types of ash pose environmental risks if not properly handled, including air, soil and water contamination.

Driven by our category-based WMS, our efforts are focused on waste reduction and recycling to minimise the environmental impact of fly ash and bottom ash. We ensure that a significant portion of these materials are safely managed through licensed vendors for recycling, primarily in cement and construction products. Any remaining volume is safely disposed of in designated ash ponds, in strict compliance with the Department of Environment (DOE) requirements.

Other hazardous waste streams, including e-waste and used transformers or switchgear, are managed through licensed vendors for reuse, recovery or recycling. Transformer oil is managed through similar recovery processes in compliance with applicable regulations.

Our approach in handling the fly ash and bottom ash is:

- Recycle: Fly ash (from all TNB-owned coal plants) and bottom ash (from *Stesen Janakuasa Sultan Azlan Shah* (SJSAS) and *Stesen Janakuasa Tuanku Muhriz* (SJTM) only) is recycled through repurposing into cement as a key ingredient in concrete production, reducing the demand for virgin raw materials.
- Safe Disposal: When recycling is not feasible, the ash is transported to secure, licensed landfill sites that adhere to environmental standards stipulated by the DOE.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

### COAL ASH MANAGEMENT EFFORT IN TNB

IF-EU-150a.3

As hazardous waste, both ash types undergo waste characterisation studies, with accredited laboratories assessing their physical, chemical and biological properties to determine potential environmental and health risks. A study on physical, chemical and biological toxicity at SJSAS in 2024, indicates that the fly ash generated contains low levels of hazardous compounds, falls within regulatory limits and does not pose significant risks to human health or the environment.

#### FLY ASH AND BOTTOM ASH MANAGEMENT PROCEDURES

All fly ash and bottom ash management at TNB is governed by the internal procedures established at each power plant, guided by ISO 14001:2015, relevant O&M manuals and applicable scheduled waste regulations to ensure systematic, controlled and compliant waste handling.

For fly ash, the procedures cover the handling of ash from boilers, Electrostatic Precipitators (ESP) and fabric filters through the Fly Ash Handling System to silos, followed by the transfer to ash ponds via conveyors or transport for use in the cement industry for recycling. Each movement is accompanied by DOE consignment notes to ensure full traceability and regulatory compliance.

Bottom ash procedures involve collecting ash from boilers using Submerged Scraper Conveyors and Bottom Ash Conveyor Systems, transferring it to silos, and subsequently moving it to ash ponds using conveyors or transport for use in the cement industry for recycling. For bottom ash transportation to the cement industry, DOE consignment notes are required for all transport in line with scheduled waste requirements.

#### COAL ASH UTILISATION AND RECYCLE

Beyond local jurisdiction requirements, a large portion of coal ash is supplied to licensed DOE-approved vendors and contractors for use in cement and construction materials, reducing landfill disposal and promoting end-to-end waste management practices.

In 2025, TNB generated 981,530.80 MT of coal ash, of which 523,545.94 MT (53%) was recycled for beneficial use, while 457,984.86 MT (47%) was sent for safe disposal.

##### Percentage of Ashes Diverted



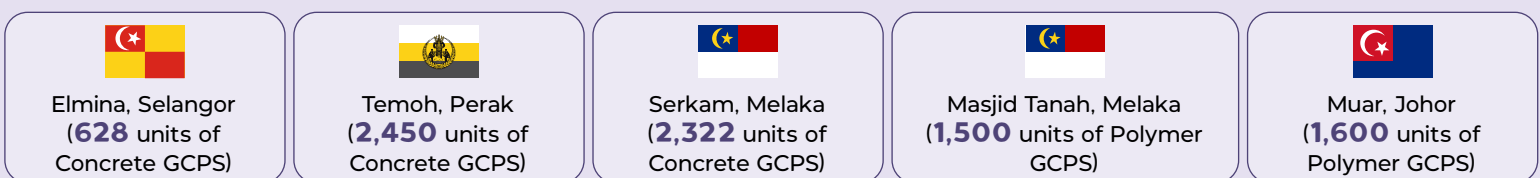
#### GREEN PRODUCT INNOVATION UTILISING BOTTOM ASH

In addressing the environmental challenges associated with coal combustion and its by-products, TNB Research Sdn. Bhd. (TNBR) has successfully recycled Coal Bottom Ash (CBA) by developing a range of innovative green products such as cable trench covers, underground cable bases, concrete components and bricks. These initiatives not only support the principles of end-to-end waste management but also align with TNB ESG commitments and the United Nations Sustainable Development Goal (SDG) 12: Responsible Consumption and Production.

The above innovation effectively reduces the total amount of our bottom ash disposal. Furthermore, the incorporation of CBA as a natural aggregate substitute in concrete products and as a reinforcement material within polymer matrices, such as polypropylene (PP), represents an innovative approach in the development of insulation products like Green Cable Protection Slabs (GCPS). This breakthrough not only enhances material performance and durability but also contributes to resource efficiency.

In addition, products utilising coal ash have the potential to achieve eco-labelling and sustainable product certifications, thereby increasing their market value, acceptance and competitiveness within the green construction and infrastructure sectors.

In 2025, a total of 5,400 units of Concrete GCPS and 3,100 units of Polymer GCPS have been produced and installed under pilot testing at several TNB Distribution Network (DN) project sites located at



These milestones not only demonstrate tangible environmental benefits through industrial waste valorisation, but also highlight the effective collaboration between TNBR, SJSAS, SJSSAA and TNB DN, alongside the manufacturing and implementation teams in driving sustainable innovation within TNB's operations.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

**RESPONSIBLE EFFLUENT MANAGEMENT**

Effluent generated from our operations is identified to be from our thermal power plants, which are governed under ISO 14001-certified Environmental Management Systems. As we practise responsible effluent management, we maintain strict effluent and water quality management across all generation facilities through wastewater treatment systems that meet DOE requirements, supported by continuous monitoring, real-time systems and well-established emergency response procedures. All these facilities ensure systematic control of water use, effluent discharge and regulatory compliance. Regular internal and third-party audits further strengthen governance and drive continuous improvement in water efficiency.

In mitigating legal and operational risks and ensuring that effluents meet quality standards to protect public health and the environment, we have developed the Industrial Effluent Treatment System (IETS) Management Guideline.

Industrial effluent treatment systems are fundamental in managing wastewater generated by TNB to safeguard the environment and ensure compliance with regulatory requirements. These systems encompass various stages and processes designed to remove contaminants from the effluent before its safe discharge into the environment.

Across TNB, IETS is well-maintained by a DOE-certified competent person to ensure full compliance with DOE requirements and is monitored continuously to comply with water quality standards. In 2025, no environmental non-compliance related to effluent management was recorded.

**EXPLORING BIODEGRADABLE TRANSFORMER OILS AND EFFICIENCY IMPROVEMENTS IN DISTRIBUTION ASSETS**

As part of our efforts to manage the hazardous transformer oil and strengthen environmental risk management for long-term asset sustainability, we are assessing more sustainable alternatives to conventional mineral oil used in transformers. Feasibility studies are being conducted on biodegradable, ester-based transformer oils, including palm oil-based ester, to determine their suitability across different transformer applications and network conditions.

Preliminary assessments indicate that palm oil-based ester is comparable to existing ester-based insulating fluids, supporting its potential for broader adoption. Studies are also evaluating their biodegradable properties, which may reduce environmental impact in leakage scenarios and contribute to improved fire safety performance due to higher flash points.

In addition, we are exploring opportunities to improve transformer efficiency across our distribution network to reduce distribution technical losses, which contribute about 4.5% of total energy delivered. This is advancing under our Smart Eco-Design High Energy Efficient Distribution Transformer programme, which integrates energy efficiency, materials innovation and design optimisation, supported by international benchmarking to ensure alignment with global best practices.

The finalisation of both the transformer programme and ester-based insulating fluid is targeted by the end of 2027. Any possible adoption will be assessed for its lifecycle performance, asset longevity, operational safety, maintenance requirements, environmental risk exposure and potential efficiency-related benefits to ensure long-term value creation and system performance.



Research is underway to assess the feasibility of biodegradable, ester-based transformer oils, including palm oil-based variants, for use across different transformer applications and network conditions, with the aim of strengthening environmental risk management.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

### SUSTAINABLE CONNECTIONS: GREENER CABLE MANAGEMENT AT TNB

To embed sustainability into our daily operations and value chain where possible, we have reconfigured our cable operations to enable closed-loop material flows and reduce finite natural resource consumption. This approach reintegrates end-of-life materials into the value chain through the Green Cable initiative.

Covering the production, transportation, installation and reuse of our cables, each stage of Green Cable presents the opportunity to reduce waste, optimise resource utilisation and lower environmental impact, with cable management structured accordingly by Tenaga Cable Industries Sdn Bhd (TCI). The Green Cable initiative converts unused and leftover cables into fully functioning cables refurbished or made from reclaimed materials.

In 2025, a pilot project was approved to refurbish 8.5 km of 33 kV 630 mm<sup>2</sup> cables, with 44 loose coils and 20 drums retrieved from the Kempas store in Johor Bahru for processing at TCI manufacturing facility.

At the facility, the cables were stripped and separated according to their material. The metal components were repurposed to form new cable cores under close supervision from TNB's Subject Matter Experts. The refurbished cables were then tested to ensure they met technical standards before deployment to project sites such as Malim Jaya in Melaka. This process diverts materials from landfills and reduces production costs by up to 40% compared to manufacturing new cables.

The Green Cable initiative demonstrates how practical, innovative thinking can lead to meaningful environmental impact. It also aligns with our Reimagining TNB 2.0 (RT2.0) strategy and directly support SDG 12: Responsible Consumption and Production and SDG 13: Climate Action, while contributing to the broader national agenda under Malaysia's National Energy Transition Roadmap (NETR) and New Industrial Master Plan 2030 (NIMP 2030) sustainability goals. This initiative is complemented with the Green Drum effort, which replaces wooden drums with steel drums, reducing our reliance on finite natural resources.



The Green Cable closed-loop system supports waste reduction and resource recovery across different stages of the cable lifecycle.

[For more information about the Green Drum initiative, refer to page 136.](#)

### NON-HAZARDOUS WASTE MANAGEMENT

In 2025, 1,502.7 tonnes of non-hazardous waste were generated, with mixed waste as the largest category, followed by garden waste, residual waste, paper waste and bulky waste. Of the total, 1,304.6 tonnes (87%) were disposed, while 198.1 tonnes (13%) were recycled. With data analysis and identification of key waste streams, we can pinpoint opportunities for targeted 4Rs (Reduce, Reuse, Recycle and Recover) efforts as part of our category-based WMS.

Non-Hazardous Waste (0.15%)	Amount (MT)
Mixed Waste	1,023.7
Garden Waste	280.9
Recyclable Paper	79.5
Residual Waste	63.7
Recyclable Tin, Aluminium and Plastic	39.8
Bulky Waste	14.5
Recyclable Glass	0.6
<b>Total</b>	<b>1,502.7</b>

WASTE MANAGEMENT AND COAL ASH MANAGEMENT

We manage non-hazardous (solid) waste in accordance with Malaysia’s Solid Waste Regulations. Recyclable waste is carefully segregated, stored and sent to licensed collectors or recycling centres to ensure safe disposal and minimise environmental impact.

Solid waste is categorised into recyclable materials, such as glass, paper and aluminium and non-recyclable waste, which includes mixed waste and food waste.

**We have rolled out the 3R - Reduce, Reuse and Recycle - initiatives to inculcate ESG behaviour in our employees.**

Reduce	Reuse	Recycle
<ul style="list-style-type: none"> <li>• Digitalisation of documents and systems</li> <li>• Providing glass jugs instead of plastic bottles in meeting rooms</li> <li>• Reducing single use plastic</li> </ul>	<ul style="list-style-type: none"> <li>• Implementing an ongoing “Bring Your Own Container” campaign</li> </ul>	<ul style="list-style-type: none"> <li>• Providing 3R bins across TNB premises</li> </ul>



Food waste serves as an opportunity for us to enhance our waste management efforts.

Through the food waste segregation programme at our premises, it promotes individual responsibility and behavioural change among employees, emphasising conscious consumption and waste reduction practices. By fostering these practices, we empower our workforce to contribute to sustainability both at work and at home, creating a collective positive impact on the environment.

TNB is also exploring additional solutions to further reduce food waste, including:

Food Waste Monitoring	Internal Circularity	Strategic Partnerships
Tracking food waste generation across TNB premises, with data recorded in the Tenaga Solid Waste Inventory (TESWI) system	Diverting food waste to the TNB Research Anaerobic Digestion system to convert them into biogas and nutrient-rich fertilisers	Collaborating with technology companies to develop innovative food waste management solutions

Our non-hazardous waste management complies with the Solid Waste and Public Cleansing Management Act 2007 (Act 672) and regulations set by the *Jabatan Pengurusan Sisa Pepejal Negara* (JPSPN). We are taking a phased approach towards improving our non-hazardous waste management. In 2023, we introduced the Tenaga Solid Waste Inventory (TESWI) to streamline data collection and monitoring of non-hazardous waste generation, promoting waste separation and recycling practices.

Initiatives such as source segregation, on-site composting and sustainable landscaping to transform waste into valuable resources are being explored to support our end-to-end waste management goals.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

### TURNING WASTE INTO ENERGY: HOW TNB CONVERTS EVERYDAY FOOD WASTE INTO RENEWABLE SOLUTIONS

We manage food waste through a waste-to-energy approach that diverts organic waste from landfills and converts it into renewable resources and usable by-products. Collected food waste is transported to the TNBR facility, where it is segregated and processed through a Pilot Dry Anaerobic Digester (AD) system. Using anaerobic digestion, the system converts organic waste into biogas and liquid biofertiliser while reducing process emissions. The refined biogas is used as a cleaner energy source for microgrid applications and TNB cafeterias, while the biofertiliser supports landscaping, urban farming and community agriculture initiatives through partners such as KongsikL and KEBUNITI. As of December 2025, more than 6,000 kg of food waste from TNB kitchens has been diverted from landfills through this initiative.



More than 6,000 kg of food waste from TNB kitchens was processed in 2025 to divert organic waste from landfill and support more efficient organic waste management practices.

To further maximise resource recovery, food waste is processed through a torrefaction system to produce biochar, a high-energy fuel or soil enhancer with significant carbon sink potential. This efficient system can also be configured to convert plastic waste into pyrolysis oil, reducing power consumption by half while accelerating the waste-to-resource conversion process. Through integrated technologies, organic waste is transformed into sustainable value streams that significantly reduce landfill reliance.

### GREEN DRUM: HOW STEEL DRUMS CAN SAVE FORESTS

For decades, cables have been transported to project sites across Malaysia using large wooden drums, also known as reels. These drums have played a crucial role in the nation's industrial growth from the early years of Independence to Malaysia's rise as a modern, fast-developing economy, supporting the utility, industrial and telecommunications sectors throughout this period.

Typically made from mixed hardwood or softwood, these drums can carry tonnes of cable and have long been used across many sectors. However, the production of wooden drums is vulnerable to various factors such as price increase due to shortage of timber, sourcing and logistics, potentially resulting in disrupted supplies of cables and power delivery. It is estimated that about 5,000 trees are used to make 14,000 wooden drums.

To reduce pressure on the environment, TCI implemented the Green Drum initiative by replacing wooden drums with steel drums. Not only are steel drums cost efficient, but they can also last up to 10 years compared to wooden drums, which typically last only six months in outdoor conditions.

We currently utilise two types of light steel drums, which can carry either 11 kV or 33 kV cables. These drums are lighter than wooden drums and weigh 250 kg and 300 kg, respectively, compared to 400 kg and 500 kg per wooden drum. To prevent cable theft, the steel drums are fitted with GPS trackers to enable real-time monitoring of their location and cable information, mitigating disruptions to the supply chain and power supply.



Wooden drums, which rely on timber and other raw materials, have been replaced with steel drums as a sustainable solution due to their durability, reusability and longer service life. Steel drums can be reconditioned and reused multiple times, helping reduce demand for single-use packaging materials and lowering overall material consumption.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

**HEALTH, SAFETY AND ENVIRONMENT MANAGEMENT SYSTEM (HSEMS)**

In addition to category-based WMS, we continue to enhance operational efficiency through a robust Health, Safety and Environment Management System (HSEMS) framework, which ensures effective waste management, regulatory compliance and continuous improvement across operations. As the system is supported by competent environmental professionals, divisions, departments and subsidiaries are guided to manage waste systematically, from identification and segregation to storage, handling, transport and disposal, in line with legal requirements and internal environmental standards.

The HSEMS is aligned with ISO 14001:2015 which provides a structured framework for consistent and responsible environmental management across all TNB operations. It ensures systematic control, monitoring and transparent reporting of waste management across all our operational sites.

Strong leadership commitment and employee participation are fundamental to the effectiveness of waste management under the HSEMS. Training, competency development, site inspections, audits and continuous monitoring form key elements of the system, ensuring operational discipline, compliance and continual improvement in waste management performance across all our operations.

 [For more details on HSEMS, please refer to the Material Topic chapter on Safety, Health and Well-being.](#)

**BUILDING COMPETENCY AND DRIVING RESPONSIBLE WASTE PRACTICES**

We ensure that all waste management personnel are trained and accredited by the DOE, with regular audits conducted to maintain compliance and support continual improvement. In 2025, the number of DOE-accredited environmental professionals increased to 247, up from 194 in 2024, highlighting our commitment to enhancing environmental competency and operational excellence. Continuous training is provided at ILSAS to equip TNB employees with the necessary skills and knowledge for effective waste handling, ensuring our workforce remains capable and up to date with best practices.

We continuously encourage behaviour change with regards to waste management, including integrating waste management into our business operations to ensure compliance with regulatory requirements and to achieve the intended outcome.

**DATA COLLECTION AND BASELINING**

Effective waste management depends on accurate data. We track waste generation through key activities such as collection, segregation, processing, treatment and disposal. Data collection enables baseline establishment, progress monitoring and evaluation of waste reduction initiatives.

We have developed two (2) digital tools, the E-Waste Inventory System (E-WI) and the TNB Solid Waste Inventory System (TESWI) to capture electrical, electronic and solid waste data. These systems improve data accuracy and traceability, enabling effective monitoring of waste performance.

**RISK MANAGEMENT**

*IFRS 51.43(a)(b), 44(a)(b)(c); IFRS 52.24, 25(a)(b)(c)*

As coal ash contributes approximately 97% of our total waste, the monitoring and management of coal ash becomes pertinent in expediting our decarbonisation efforts. By transitioning to gas-based power plants, we can eliminate ash generation entirely, reducing environmental risks from ash ponds and land use for disposal sites. By 2045, all coal plants are to be retired in line with Power Purchase Agreements expiry. Our generation portfolio will eventually be ash-free, significantly reducing waste management costs and environmental liabilities.

Nevertheless, we continue to place strong emphasis on environmental risk management to ensure compliance with Malaysia's environmental laws. Under Part IVA, Section 34B of the Environmental Quality Act 1974, the handling, storage, transportation, treatment and disposal of scheduled waste are strictly regulated.

To reduce the risk of environmental non-compliance and strengthen sustainability performance, we have enhanced our management systems through a range of strategic measures. These include implementing an Environmental Management System, standardising internal SOPs, building environmental competencies, conducting regular audits and inspections and advancing environmental programmes that support responsible operations. Together, these efforts reinforce our commitment to sustainable and compliant practices.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

### HAZARDOUS WASTE STANDARDISED PRACTICES

In compliance with the Environmental Quality Act, we strictly implement and enforce our Scheduled Waste Disposal Management Guidelines across all operations. These guidelines establish a standardised five (5)-step process for managing hazardous waste, covering proper classification, safe storage, packing and labelling, inventory control, disposal and continuous monitoring. This framework ensures a consistent, transparent and fully compliant approach to hazardous waste management throughout our facilities.

The guidelines also outline clear training requirements, roles and responsibilities for all personnel involved in hazardous waste handling. By strengthening competency and accountability at every level, we ensure that hazardous waste is managed safely, responsibly and in accordance with regulatory expectations and industry's best practices.

### ENVIRONMENTAL COMPETENCY

All personnel involved in scheduled waste management, including Certified Environmental Professionals and Environmental Officers, are trained and accredited by the DOE. Regular audits and inspections are conducted to verify compliance and identify continuous improvement opportunities.

Recognising the importance of building strong competencies in environmental management, we have increased the number of environmentally competent personnel accredited by the DOE from 194 to 247 in 2025. This increase demonstrates TNB's continuous commitment to enhancing environmental performance, regulatory compliance and operational excellence across its business operations.

These personnel hold various professional certifications, including:

Environmental Certification	Applicability	Number of Certified Personnel	
		2024	2025
<b>Certified Environmental Professional in Scheduled Waste Management (CEPSWaM)</b>	Power Plants Warehouse	75	126
<b>Certified Environmental Professionals in the Operation of Industrial Effluent Treatment Systems (CePIETSO)</b>		21	30
<b>Certified Environmental Professionals in Bag Filter Operation (CePBFO)</b>	Power Plants	17	18
<b>Certified Environmental Professional in Scrubber Operations (CePSO)</b>		18	24
<b>Certified Environmental Professionals in Sewage Treatment Plant Operation (CePSTPO)</b>	Power Plants Offices	14	15
<b>Certified Professional for Environmental Officer in Environmental Impact Assessment (CePEOEIA)</b>	EIA Projects	21	21
<b>Certified Inspector of Sediment and Erosion Control (CISEC)</b>		28	13
<b>Total</b>		<b>194</b>	<b>247</b>

Their responsibilities include providing technical advice, planning and implementing effective environmental management practices and notifying relevant authorities when necessary. By expanding this pool of competent personnel, we strengthen our capacity to manage environmental risks, promote regulatory compliance and drive continuous improvement in line with its sustainability objectives and environmental policy commitments.

## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

## ENVIRONMENTAL AUDIT AND INSPECTION

To ensure effective environmental management through continuous audits and inspections, we are supported by a structured audit framework that includes the Third Party HSE Audit, Corporate-level HSE Internal Audits, Operational-level HSE Internal Audit and HSE Inspection.

The TNB HSE Corporate Audit is risk-based, with its scope determined by environmental risks and prior-year performance. Selected divisions are audited to identify gaps and opportunities for improvement, providing independent internal assurance of compliance with hazardous waste legislation and other environmental requirements across all business entities.

In 2025, various audits and inspections were conducted to identify improvement opportunities.

Type of Audit/Inspections	Audit Details	Number of Audit or Inspection Conducted
<b>Third-Party HSE Audit</b>	Independent Audit conducted by certification body (SIRIM)	7
<b>Corporate-level HSE Internal Audit</b>	Audit conducted by HSE Corporate to TNB Divisions/Subsidiaries	1
<b>Operational-level HSE Internal Audit</b>	Audit conducted by the HSE business partners at respective Divisions/Subsidiaries	7
<b>HSE Inspection</b>	Risk-based spot-checks at targeted site by corporate HSE and HSE business partners	369

To support timely follow-up and resolution of findings, we leverage the e-HSE online system, which allows logging, tracking and the review of non-compliance from audits and inspections. The system's Non-conformance Report (NCR) module is widely used across TNB and its subsidiaries, with NCR status monitored closely and reported to top management through the monthly HSE Performance Report.

## ENVIRONMENTAL SELF-REGULATION

Our environmental self-regulation is implemented through the Self Visual Report (SVR) programme across all divisions, departments and subsidiaries. SVR is a self-reporting visual report that consists of 24 elements, such as hazardous waste inventory records, competency records, labelling conditions and overall pictorial assessments of store and waste conditions. In 2025, a total of 996 SVRs were recorded across 83 storage facilities.



## INCULCATING BEHAVIOURAL CHANGE THROUGH ESTABLISHMENT OF E-WASTE COLLECTION CENTRE

During its first seven (7) months of operation (June to December 2025), the e-waste collection centre collected 452.3 kg of e-waste through more than 300 employee visits, with monthly volumes steadily increasing in the first four (4) months of operations and peaking at 111.6 kg in September. Most items received were small electronic devices, charging cables and laptops, indicating active staff participation and growing awareness of proper e-waste handling.



The launch of TNB's e-waste collection centre in 2025 has resulted in the collection of over 400 kg of e-waste within seven months.



## WASTE MANAGEMENT AND COAL ASH MANAGEMENT

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Hazardous Waste Diverted From Disposal by Type</b>								
GRI 306-4	SW1: Metal and metal-bearing waste	Metric tonnes	428,915	489,705	532,148	-	-	
IF-EU150a.1	Ash	Metric tonnes	425,703	487,482	523,346	-	-	
GRI 306-4								
GRI 306-4	E-Waste	Metric tonnes	3,212	2,006	8,602	-	-	
	Others	Metric tonnes	-	217	200	-	-	
	SW2: Waste containing principally inorganic constituents	Metric tonnes	2	35	2	-	-	
	SW3: Waste containing principally organic constituents	Metric tonnes	3,970	2,393	7,642	-	-	
	SW4: Waste containing either organic or inorganic constituents	Metric tonnes	7,707	5,319	7,453	-	-	
Bursa C10(a) [Waste Management]	Total hazardous waste recycling rate	%	47.42	55.58	54.14	30% recycling rate of hazardous waste by 2025	50% recycling rate by 2030	
GRI 306-4								
<b>Non-Hazardous Waste Diverted From Disposal</b>								
Bursa C10(a) [Waste Management]	Total non-hazardous waste diverted from disposal	Metric tonnes	-	127	198	-	-	
GRI 306-4	Total non-hazardous waste recycling rate	%	-	13.25	13.18	-	-	
<b>WASTE DIRECTED TO DISPOSAL</b>								
<b>Hazardous Waste Directed to Disposal</b>								
Bursa C10(a) [Waste Management]	Total weight of hazardous waste directed to disposal	Metric tonnes	488,528	397,586	463,508	-	-	
GRI 306-5								
<b>Hazardous Waste Directed to Disposal by Type</b>								
GRI 306-5	SW1: Metal and metal-bearing waste	Metric tonnes	488,039	397,173	459,708	-	-	
	Ash	Metric tonnes	487,360	396,885	458,185	-	-	
	E-Waste	Metric tonnes	-	13	-	-	-	
	Others	Metric tonnes	679	275	1,523	-	-	
	SW2: Waste containing principally inorganic constituents	Metric tonnes	22	88	72	-	-	
	SW3: Waste containing principally organic constituents	Metric tonnes	52	138	28	-	-	
	SW4: Waste containing either organic or inorganic constituents	Metric tonnes	414	186	3,699	-	-	
<b>Non-Hazardous Waste Directed to Disposal</b>								
Bursa C10(a) [Waste Management]	Total non-hazardous waste directed to disposal	Metric tonnes	-	831	1,304	-	-	
GRI 306-5	Total waste directed to disposal	Metric tonnes	-	398,417	464,812	-	-	

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

IFRS S1 MT 10 **SAFETY, HEALTH AND WELL-BEING**



**WHY IS IT IMPORTANT?**

At TNB, creating a safe, healthy and supportive work environment is fundamental to sustaining reliable energy delivery and long-term business resilience. Across our operations, from power generation and grid management to fieldwork and infrastructure projects, we remain committed to protecting our employees, contractors, suppliers, vendors and the communities in the areas which we operate.

We continuously strengthen our safety and health practices through robust governance, proactive risk management and operational discipline. By embedding safety awareness, leadership accountability and data-driven insights into daily operations, we aim to prevent incidents, minimise workplace risks and foster a strong culture of care.

Our commitment also extends beyond physical safety. We recognise that employee well-being plays a critical role in building a resilient, engaged and high-performing workforce. To support this, we continue to promote mental health awareness, work-life balance and overall wellness through initiatives that encourage healthy lifestyles, emotional support and a positive workplace culture. By prioritising holistic well-being, we strengthen our people's ability to adapt, perform and contribute meaningfully to TNB's long-term growth and sustainability ambitions.

**OPPORTUNITY AND RISK**

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Enhancing Workforce Safety Through Digital and Engineering Solutions	Risk: Anticipated Business Growth and Dispersed Asset Footprint Increases Workplace Safety Risks																
<b>Description</b>	<p>TNB has the opportunity to improve workforce safety by deploying digital technologies and engineering solutions across its operations. Drones and remote monitoring tools are used to inspect power lines, substations and other high-risk areas, allowing hazards to be detected remotely and reducing the need for workers to access dangerous locations. Distribution Automation (DA) elevates safety standards during grid switching operations by remote, automated switching. This significantly enhances worker safety by minimising or eliminating the need for field crews to manually operate switches in hazardous, high-voltage environments.</p> <p>By integrating these technologies into daily operations, TNB can reduce workplace incidents, enhance employee well-being and comply with occupational health and safety regulations, while strengthening operational resilience, workforce productivity and its reputation as a safe and responsible employer.</p>	<p>TNB's operations and diverse nature of work that involves over 35,000 employees, approximately 3,000 active vendors and numerous construction, maintenance and infrastructure projects nationwide expose the organisation to significant workplace safety risks. With more than 90,000 dispersed assets across Peninsular Malaysia and Sabah, field personnel and contractors are frequently required to work in challenging environments and under varying weather conditions, increasing exposure to hazards such as falls, electrical contact, vehicle incidents and wildlife threats.</p> <p>With anticipated business growth and workforce expansion as TNB accelerates its energy transition journey, this could further heighten the likelihood of workplace safety incidents. Without robust safety governance, effective training and continuous monitoring, the risk of workplace safety incidents may rise, potentially resulting in injuries, operational disruptions, legal liabilities and reputational impact.</p> <p>Nevertheless, continuous safety enhancement remains a priority to safeguard employees and contractors and maintain operational reliability.</p>																
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens operational reliability and productivity by reducing workplace incidents across TNB's extensive field operations, substations and transmission network.</li> <li>Enhances safety standards and lowers exposure to hazardous environments through automation, remote monitoring and digital engineering tool.</li> </ul>	<ul style="list-style-type: none"> <li>Undermines TNB's operational safety and health performance and weakens stakeholder confidence in its safety and health value proposition.</li> </ul>																
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Prioritises investments in digital safety technologies (drones, DA, remote sensing, automated switching) to mitigate high-risk activities and comply with safety regulations.</li> <li>Guides workforce planning and capability development to embed a strong safety culture and support resilient operations across dispersed assets.</li> </ul>	<ul style="list-style-type: none"> <li>Enhances safety governance and initiatives across key focus areas, including electrical safety, working at heights and road incidents.</li> <li>Leverages digital and automation solutions for high-risk work with stronger compliance enforcement.</li> </ul>																
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Requires capital investment to deploy digital safety technologies across high-risk operational environments, including substations, transmission networks and switching operations.</li> <li>Strengthens long-term operational capability and asset performance by embedding advanced safety and automation technologies across the network.</li> </ul>	<ul style="list-style-type: none"> <li>Higher operating costs resulting from increased cost associated with accidents such as lost man-hours or productivity, medical treatment, compensation payouts, investigations and corrective actions.</li> </ul>																
<b>Time Horizon</b>	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>CAPEX RM268.8 mil</td> <td>CAPEX &gt;RM450 mil</td> <td>CAPEX RM50 mil – RM450 mil</td> <td>CAPEX &gt;RM450 mil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	CAPEX RM268.8 mil	CAPEX >RM450 mil	CAPEX RM50 mil – RM450 mil	CAPEX >RM450 mil	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>Cost Increase RM1.8 mil</td> <td>Cost Increase &lt;RM50 mil</td> <td>Cost Increase &lt;RM50 mil</td> <td>Cost Increase &lt;RM50 mil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	Cost Increase RM1.8 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil
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<b>Anticipated Effect on Financial Position</b>	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>CAPEX RM268.8 mil</td> <td>CAPEX &gt;RM450 mil</td> <td>CAPEX RM50 mil – RM450 mil</td> <td>CAPEX &gt;RM450 mil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	CAPEX RM268.8 mil	CAPEX >RM450 mil	CAPEX RM50 mil – RM450 mil	CAPEX >RM450 mil	<table border="1"> <thead> <tr> <th>Current</th> <th>Short</th> <th>Medium</th> <th>Long</th> </tr> </thead> <tbody> <tr> <td>Cost Increase RM1.8 mil</td> <td>Cost Increase &lt;RM50 mil</td> <td>Cost Increase &lt;RM50 mil</td> <td>Cost Increase &lt;RM50 mil</td> </tr> </tbody> </table>	Current	Short	Medium	Long	Cost Increase RM1.8 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil
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**GOVERNANCE IN ACTION**

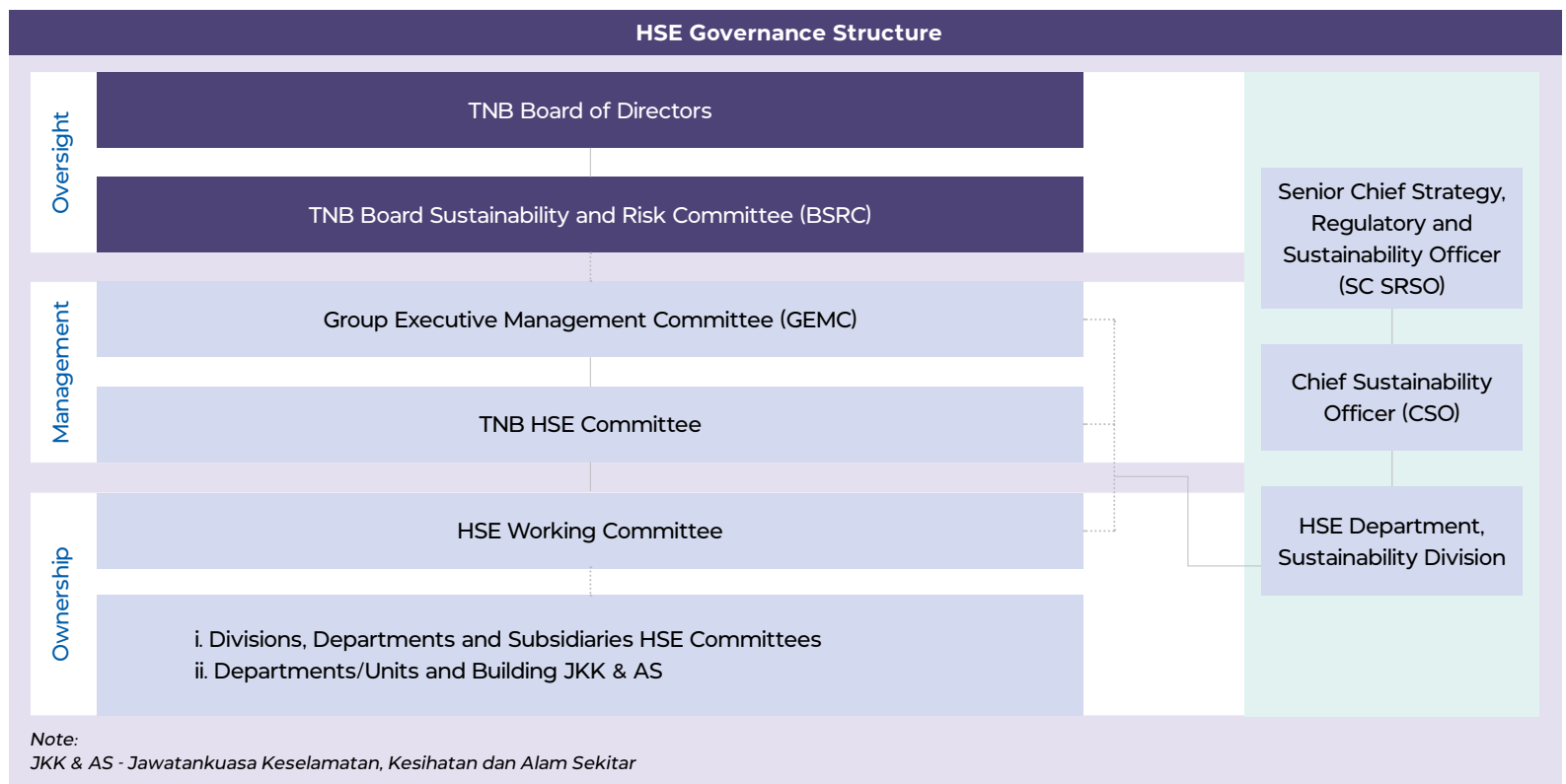
IFRS S1.27(a)(b); IFRS S2.6(a)(b)

TNB's Health, Safety and Environment (HSE) governance structure functions through clear escalation channels, regular performance reviews and integrated decision-making. The Board Sustainability and Risk Committee (BSRC) reviews key HSE indicators, including incident trends, fatality incident (if any), lost-time injury frequency rates (LTIFR) and significant regulatory findings, as part of its oversight of enterprise-wide risks. The HSE-related updates are also shared with the TNB Board through monthly Board Sustainability and Risk Committee (BSRC) chairman reports.

At management level, material incidents and emerging safety issues are reported to the Group Executive Management Committee (GEMC), which ensures timely corrective actions and allocates resources for preventive measures.

At the operational level, the TNB HSE Committee, chaired by Senior Chief Strategy, Regulatory and Sustainability Officer (SC SRSO), with members from selected C-suites meets at least quarterly to review HSE performance, to share lessons learned and approve HSE strategic direction, HSE-related framework and management plan. In 2026, we established the HSE Working Committee (HSEWC), chaired by Head of OSHE SD, comprising HSE Business Partners and representatives from Business Entity operations. The committee meets at least monthly to review and approve operational and technical HSE instructions and guidelines. Each division and subsidiary is also required to report on HSE compliance, material incident findings and the progress of corrective actions, ensuring transparency and accountability throughout the organisation. The Corporate HSE Department consolidates these insights and provides data-driven analyses to support management and Board deliberations.

This structured governance process allows us to maintain a consistent and proactive approach to managing health and safety risks. It ensures that policy decisions are informed by frontline insights, and that performance outcomes are continuously monitored against internal benchmarks and regulatory requirements. Through this integrated approach, we strengthen our safety culture, embed accountability at every level and reinforce our commitment to protecting people, assets and the communities we serve.



**ADHERENCE TO JURISDICTIONAL LAWS AND REGULATIONS**

We uphold full compliance with the Occupational Safety and Health Act (OSHA) 1994 as a fundamental pillar of our Health, Safety and Environment (HSE) management. Guided by the Act's principles of self-regulation, shared responsibility and hazard prevention at source, we embed OSHA 1994 requirements into all levels of governance, operational controls and risk-management processes. This commitment is reflected in the Group's systematic identification of workplace hazards, implementation of robust engineering and administrative controls, provision of continuous training and competency development and enforcement of safe work procedures aligned with regulatory standards.

By aligning our internal HSE policies and frameworks with the provisions of OSHA 1994, we ensure that all employees, contractors and partners operate in a safe and healthy environment. This alignment not only strengthens legal compliance but also reinforces the Group's aspiration toward a zero-harm culture, where preventing injury, protecting public safety and promoting workers' well-being remain central to operational excellence and sustainable value creation.

## SAFETY, HEALTH AND WELL-BEING

### TNB OCCUPATIONAL SAFETY AND HEALTH (OSH) POLICIES

Our approach to occupational safety and health is anchored in our Occupational Safety and Health (OSH) Policy, which outlines our unwavering commitment to provide and maintain a safe, healthy and sustainable working environment for all employees, contractors, vendors, visitors and the communities we serve. This policy also reflects our core responsibility to prevent work-related injuries, illnesses and incidents while supporting our mission to deliver reliable and sustainable energy solutions.

In line with the policy, we strive to eliminate hazards, reduce occupational risks and foster a culture of prevention and care across all operations. We comply with all applicable laws, regulations and standards to ensure that OSH considerations are embedded in every phase of our business activities, from planning and design to construction, operation and maintenance.

The implementation of our OSH Policy is guided by a structured governance framework and a systematic management approach that ensures accountability, consistency and continuous improvement across all operations. The Corporate HSE Department leads policy execution, supported by divisional HSE teams and business partners who tailor initiatives to site-specific conditions and operational risks.

We have also implemented the Stop Work Intervention Policy, empowering any employee or contractor to halt work immediately if a situation poses an imminent risk to health or safety. This policy fosters a proactive safety culture by ensuring potential hazards are identified and addressed promptly and effectively, while remaining aligned with our governance standards.

[For more information on our OSH Policy, please refer here \[https://www.tnb.com.my/assets/files/Occupational\\\_Safety\\\_And\\\_Health\\\_Policy.pdf\]\(https://www.tnb.com.my/assets/files/Occupational\_Safety\_And\_Health\_Policy.pdf\)](https://www.tnb.com.my/assets/files/Occupational_Safety_And_Health_Policy.pdf)

### ISO CERTIFICATION

We reinforce our commitment to a zero-harm workplace through ISO 45001:2018 certification, embedding a proactive safety culture across all operations. The certification enables systematic risk management, regulatory compliance and continuous improvement in occupational health and safety, safeguarding employees, contractors and stakeholders while strengthening operational resilience.

A total of nine (9) Business Entities with high-risk business operations are currently certified under the ISO 45001:2018 Occupational Health and Safety Management Systems:

- |  |  |   |
|--|--|---|
| 1 TNB Power Generation Sdn. Bhd. (TNB Genco) | 4 Project Management & Control (PMC), TNB Global Business Solutions (TGBS) | 7 Tenaga Switchgear (TSG) Sdn. Bhd.                                       |
| 2 Grid Division                              | 5 Malaysian Transformer Manufacturer (MTM) Sdn. Bhd.                       | 8 Sabah Electricity (Generation, Transmission and Distribution Divisions) |
| 3 Distribution Network Division              | 6 Tenaga Cable Industries (TCI) Sdn. Bhd.                                  | 9 Vantage RE Limited, United Kingdom                                      |



### EMBEDDING A STRONG TONE FROM THE TOP THROUGH JOM TURUN PADANG - OSHE MANAGEMENT BY WALKING ABOUT (MBWA)

We acknowledge that leadership commitment is fundamental to building a strong safety culture, setting the tone for accountability, encouraging hazard reporting and driving proactive safety management across the organisation. Guided by industry research highlighting the effectiveness of OSHE MBWA in improving frontline engagement, communication and safe behaviour reinforcement, we introduced *Jom Turun Padang* - OSHE MBWA in 2026. This holistic leadership initiative strengthens visible leadership commitment by bringing top management closer to frontline operations, while supporting continuous improvement in OSHE performance. Implemented in collaboration with business divisions and subsidiaries, the initiative is carried out through structured operational site visits involving opening engagements, site assessments, inspections and discussions.

The initiative integrates key engagement themes covering safety, sustainability, integrity and productivity, while site selection is guided by incident trends, audit findings and operational risk exposure alongside TNB's 2026 OSHE Key Focus Areas. It prioritises electrical works with emphasis on Permit to Work compliance and Electrical Safety Rules implementation; roadside works focusing on traffic management controls; project sites involving high-risk activities such as working at height, excavation, hoisting and lifting operations; as well as motor vehicle safety, including safe riding competency development through training programmes. Through this initiative, TNB continues to reinforce a proactive safety culture, driving OSHE self-regulation and accountability, strengthen frontline engagement and support sustainable operational excellence.



Our CPeO, Puan Feldatun Binti Sharif, observing critical substation maintenance works in Johor as part of the Group's commitment to operational safety, asset reliability and frontline engagement.



Our CSVO, Ir. Dr. Mohd Fadzil Bin Mohd Siam, engaging frontline teams during a worksite visit in Sabah to reinforce operational safety and OSHE compliance.

**STRATEGY**

IFRS S1.29, 30, 31, 33(a)(b)(c); IFRS S2.14(a)(b)(c)

**OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENT MANAGEMENT SYSTEM (HSEMS)**

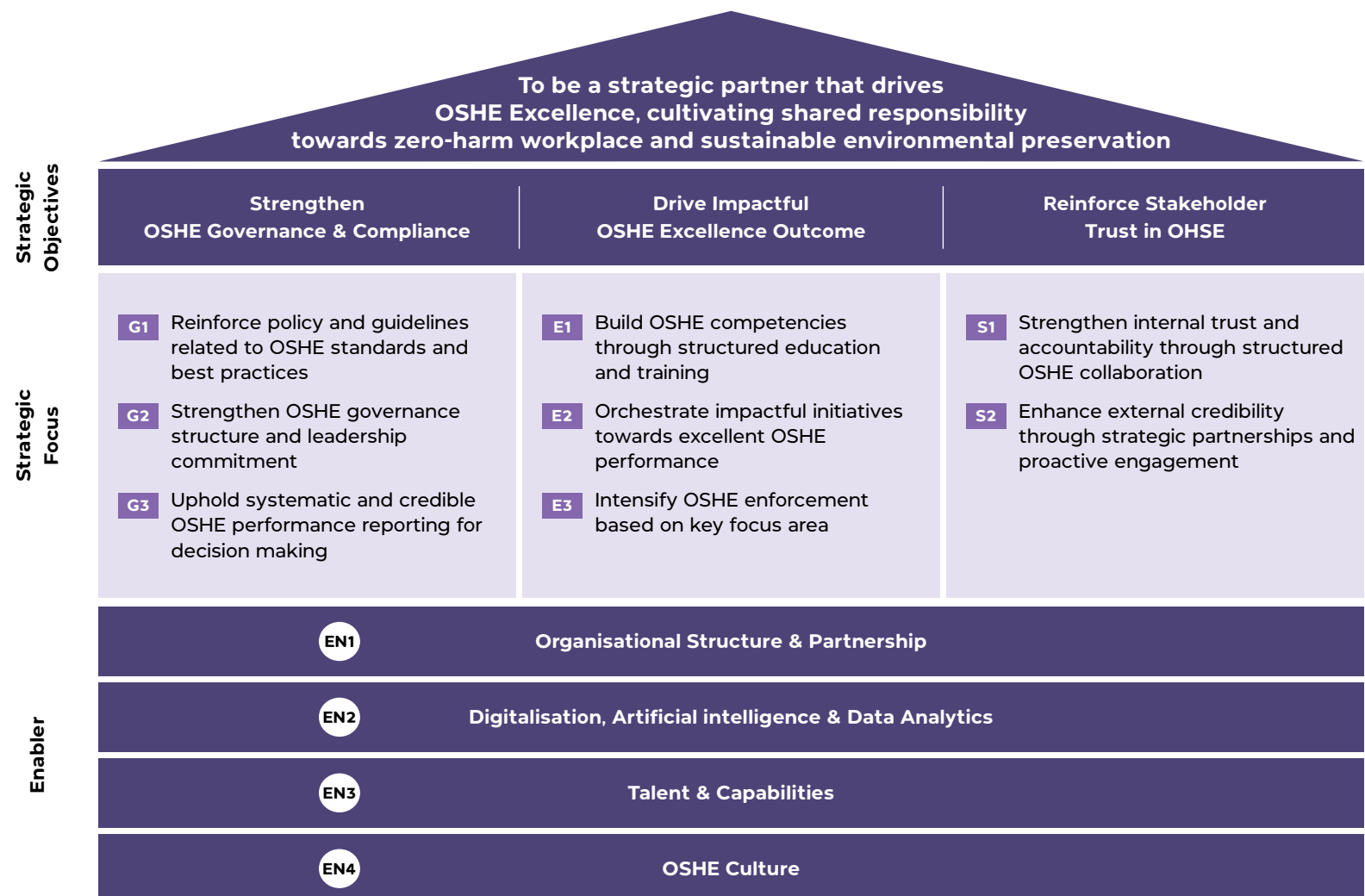
Our HSE strategy is operationalised through the Group’s Occupational HSEMS which serves as the primary mechanism for translating strategic intent into structured, on-the-ground implementation. The HSEMS covers employees, contractors, vendors, suppliers and all parties related to our operations. The HSE strategy outlines our long-term direction, anchored in a zero-harm workplace, regulatory compliance and risk management, while the HSEMS provides the systematic processes and performance controls for delivering consistent outcomes across operations. Established in alignment with the ISO 45001:2018 Occupational Health and Safety Management Systems and ISO 14001:2015 Environmental Management Systems, the HSEMS provides the foundation for policy implementation. This is done through a systematic approach to identify, evaluate and mitigate safety and environmental risks, while embedding a culture of accountability and proactive intervention. Additionally, the HSEMS supports national regulations, industry best practices and international standards, ensuring we meet both regulatory requirements and global expectations for responsible business conduct. Through HSEMS, we are not only safeguarding our workforce and assets but also demonstrating our commitment to sustainable operations, enhancing stakeholder trust and supporting long-term resilience.

**STRATEGY IN MOTION**

As we accelerate our energy transition journey alongside business growth, HSE becomes increasingly prominent and central to our operations. In 2025, we revised our HSE Strategy to elevate HSE’s role within the company’s evolving vision. The strategy establishes a structured framework to drive operational excellence, achieve zero-harm outcomes and safeguard the environment across our business operations.

It is anchored on three (3) Strategic Objectives: Strengthen OSHE Governance & Compliance, Drive Impactful OSHE Outcome and Reinforce Stakeholder Trust on OSHE, ensuring that safety, health and environmental considerations are embedded at every level of the organisation. This high-level framework enables the HSE community to design and implement initiatives that are aligned with its Strategic Focus and Objectives, while retaining the flexibility to address specific operational needs.

Four (4) supporting Enablers, namely Organisational Structure & Partnership, Digitalisation, Artificial intelligence & Data Analytic, Talent & Capabilities and OSHE Culture, provide the tools and systems to translate strategy into measurable performance.



## SAFETY, HEALTH AND WELL-BEING

Anchoring on the Data Analytics Enabler, we conducted a diagnostic exercise on material incidents from 2021 to 2025. The exercise highlighted four (4) Key Focus Areas (KFAs) to prioritise for mitigation: electrical, project sites, roadside works and motor vehicles. We developed mitigation measures based on the root cause analysis using the 4E1D approach: Education, Engagement, Engineering, Enforcement and Digitalisation.

Guided by the 4E1D framework, mitigation measures are prioritised according to the nature and severity of the risks identified within each KFA. Under Education, Engagement and Enforcement, each KFA identifies specific assets and their hotspot areas, high-risk work scope in projects as well as target focus groups for tailored public engagement. The Engineering approach focuses on the replacement, modification, or enhancement of critical assets and infrastructure where risk reduction can be achieved through design improvements and technical controls. Complementing these efforts, Digitalisation serves as a key enabler to enhance process efficiency, strengthen reporting transparency, and unlock value through innovative, data-driven solutions that support proactive risk management and decision-making.

### EDUCATION

#### Life Saving Rules Programme

The Life Saving Rules (LSR), introduced in 2017, were established to prevent serious injuries and fatalities among our employees and contractors. These rules are mandatory across all divisions, departments, subsidiaries and contractors, with particular emphasis on high-risk environments such as installations, power stations and construction sites.

To date, we have implemented six (6) Life Saving Rules (LSR), aimed at preventing serious accidents that could result in fatalities among employees and contractors. Adherence to LSR requirements is imposed on employees as well as on contractors and sub-contractors. Non-compliance may result in disciplinary action, including termination and blacklisting for employees and contractors/subcontractors. However, the primary objective of the LSR is to protect lives rather than to punish.

Since the implementation of the LSR, fatal accidents related to LSR violations have decreased. There were no LSR-related fatalities recorded in 2025.

#### Core Rules



**LSR #1:**

Isolate, earth and test before touch



**LSR #2:**

Valid permit to work mandatory



**LSR #3:**

Wear Arc Flash Suit when switching

#### Supplementary Rules



**LSR #4:**

Use fall protection



**LSR #5:**

Obtain authorisation before entering confined space



**LSR #6:**

Caution suspended load

#### The goals of LSR include:

1

Maintaining legal compliance

2

Saving lives and preventing severe injuries

3

Achieving zero accidents

4

Promoting a fully generative safety culture

5

Improving overall occupational health and safety performance

## SAFETY, HEALTH AND WELL-BEING

**Safe Riding**

To strengthen our safety culture, we authorise specific groups of employees, such as meter readers, to use motorcycles for work-related purposes. These employees undergo comprehensive safe riding and risk management training to ensure they perform their duties safely and confidently. We conduct refresher training periodically to reinforce safe behaviours, improve hazard recognition and strengthen defensive riding skills, reflecting our commitment to continuous competency development.

Beyond traffic-related risks, we recognise that motorcycle-riding employees often face additional hazards during fieldwork, particularly in semi-urban and rural areas. These include animal-related incidents, such as dog attacks, which pose real safety risks. To address this, we provide specialised training to help our motorcycle-riding employees manage and respond to such hazards, equipping them with practical techniques to remain safe and avoid escalation.

In addition, we introduced the Safe Riding Programme for the estimated 15% of TNB employees, including subsidiaries, who commute by motorcycles. This initiative aligns with our culture of care, extending beyond regulatory requirements to prioritise the well-being of our people in their daily lives. It underscores our commitment to safeguarding employees not only in the workplace, but also in the everyday realities they face beyond our premises.

By equipping riders with essential skills, defensive riding techniques and heightened risk awareness, we demonstrate that our responsibility extends beyond the workplace, ensuring every employee returns home safely to their families. This reinforces our belief that a truly caring organisation protects its people holistically, valuing their lives, well-being and long-term safety.

The Safe Riding Programme is delivered in collaboration with our training centre, ILSAS, with a target to train more than 6,000 identified employees by 2027.



## SAFETY, HEALTH AND WELL-BEING

### Occupational Health Management

In 2025, we established our Occupational Health Framework, a structured and integrated approach to managing health-related risks across the organisation. The Framework ensures strong governance, regulatory compliance and proactive protection of employee well-being.

Anchored on the requirements of Occupational Safety and Health Act (OSHA) 1994 and Notification of Accident, Dangerous Occurrence, Occupational Poisoning and Occupational Disease Regulations 2004 (NADOPOD), the Framework systematically addresses eight (8) key occupational health hazard categories related to our operations: Noise, Ergonomics, Chemical, Indoor Air Quality, Radiation, Heat Stress, Biological and Psychosocial.

OCCUPATIONAL HEALTH FRAMEWORK			
<b>Objective</b>			
To ensure strong governance and implementation of Occupational Health (OH) in TNB towards zero occupational disease and zero non-compliance on OH			
OH Hazard in TNB	Noise	Ergonomics	Chemical
<b>Regulations and ICOP</b> (Industrial Code of Practice)	Noise Exposure Regulations 2019	Guidelines on Ergonomics Risk Assessment 2010	<ul style="list-style-type: none"> <li>• USECHH Regulations 2000</li> <li>• CLASS Regulations 2013</li> </ul>
<b>Guidance Document</b>	<b>TNB OSH Policy</b>		
<b>Internal Instruction</b>	<i>Garis Panduan Pendedahan Bising Di Tempat Kerja 2021</i>	<i>Garis Panduan Ergonomik Pejabat 2021</i>	<i>Garis Panduan Pengurusan Bahan Kimia Berbahaya 2019</i>
<b>Monitoring</b>			
a) Risk & Exposure Assessment	<ul style="list-style-type: none"> <li>• Excessive Noise Identification</li> <li>• Noise Risk Assessment (Personnel &amp; Area)</li> </ul>	Ergonomic Risk Assessment	<ul style="list-style-type: none"> <li>• Chemical Register</li> <li>• Chemical Health Risk Assessment</li> <li>• Exposure Monitoring</li> </ul>
b) Control Measures	<b>Noise Control:</b> <ul style="list-style-type: none"> <li>• Engineering Control (Enclosure, Damper etc.)</li> <li>• Duration Limit</li> <li>• PPE</li> </ul>	<b>Ergonomic Control:</b> <ul style="list-style-type: none"> <li>• Design &amp; Specification</li> <li>• Mechanical Aid (Tools, Trolley etc.)</li> <li>• Administrative Control</li> </ul>	<b>Chemical Control:</b> <ul style="list-style-type: none"> <li>• Substitution</li> <li>• Local Exhaust Ventilation</li> <li>• Emergency Response Plan (ERP)</li> <li>• Personal Protective Equipment (PPE)</li> </ul>
c) Training	Noise Training (Annually)	<ul style="list-style-type: none"> <li>• Office Ergonomic e-Learning</li> <li>• Manual Handling e-Learning</li> </ul>	Chemical Handling Training (Every 2 Years)
d) Medical Surveillance	Audiometry Report	Not Applicable	Medical Surveillance
e) Audit	Audit & Inspection	Audit & Inspection	Audit & Inspection
<b>Reporting</b>	Noise Induced Hearing Loss (NIHL)	Musculoskeletal Disorder	Poisoning, Lung Inflammation. Dermatitis

SAFETY, HEALTH AND WELL-BEING

The Framework also integrates all relevant regulatory references, internal policies, management system components and guidelines to provide a clear line of sight from legal obligations to operational practices. For each hazard area, it outlines specific requirements for risk and exposure assessments, control measures, training, medical surveillance, monitoring and reporting. This ensures that every function within TNB applies consistent, evidence-based processes to prevent occupational diseases and minimise health risks.

By consolidating regulations, internal instructions and practical implementation steps into a single, comprehensive structure, our Occupational Health Framework enhances visibility, strengthens accountability and supports continuous improvement. Ultimately, it reinforces our commitment to achieving zero occupational disease and zero non-compliance, while fostering a safe, healthy and resilient workforce across all operations.

**\*Legal Requirement**

**OSHA 1994 and its regulations** - Responsibility of employer to ensure workplace for his employees is safe and without risk to health.  
**NADOPOD 2004** - Responsibility of employer to report occupational diseases arising from the workplace

Indoor Air Quality	Radiation	Heat Stress	Biological	Psychosocial
ICOP Indoor Air Quality (IAQ) 2010	Atomic Energy Licensing Act 1984	Guidelines on Heat Stress Management 2016	Prevention & Control of Infectious Diseases Act 1988	Guidelines on Psychosocial Risk Assessment 2024
<b>HSE Management System</b>			<b>Guidelines/Circular</b>	
Not Yet Available	<i>Pekeliling Hse Bil 6/2023 Pematuhan Akta Pelesenan Tenaga Atom 1984 (Akta 304) Bagi Bahan Radioaktif</i>	Not Yet Available	Not Yet Available	Not Yet Available (Shift/Post Traumatic Disorder)
Indoor Air Quality Assessment (If Applicable)	Personnel Exposure Monitoring	Heat Stress Assessment	Not Applicable	Not Yet Available
IAQ Control: • Engineering Control • Administrative Control	Radiation Control: • Radiation Protection Officer (RPO) • Shielding (Engineering) • Duration Limit • ERP	Heat Stress Control: • Engineering Control • Administrative Control	Biological Control: • Administrative Control • PPE	Administrative Control
Not Applicable	Radiation Protection	Not Applicable	Not Applicable	Not Applicable
Not Applicable	Medical Surveillance	Not Applicable	Not Applicable	Not Applicable
Audit & Inspection	Audit & Inspection	Audit & Inspection	Audit & Inspection	Not Applicable
Sick Building Syndrome	Cancer Related To Radiation	Heat Stroke	Hepatitis B, HIV	Post Traumatic Stress Disorder

\* Penalty RM500,000, or imprisonment up to 2 years, or both

## SAFETY, HEALTH AND WELL-BEING

### Ergonomics for Comfort and Performance



Ergonomic principles are integrated into TNB's workplace to support employees' health and well-being.

We continue to strengthen our commitment to occupational health by integrating ergonomic principles across our operations. In office environments, workstations are designed in accordance with our internal ergonomic guidelines to ensure proper posture, reduce musculoskeletal strain and enhance employee comfort. Several plants have also implemented ergonomic enhancements in their control rooms, reflecting local initiatives to optimise work conditions for operational staff.

Beyond workplace design, we apply ergonomics in daily tasks through the use of lifting equipment and appropriate tools to minimise manual handling risks. These engineering and administrative measures are complemented by training programmes focused on office ergonomics and safe lifting techniques, fostering awareness and empowering employees to protect their own health. Collectively, these efforts support our goal of reducing work-related musculoskeletal disorders and promoting a healthier, safer and more sustainable workplace.

### Systematic Occupational Health Enhancement Level Programme (SOHELP)

We remain committed to upholding occupational health standards by participating in the Systematic Occupational Health Enhancement Level Programme - Do It Yourself (SOHELP DIY), initiated by the Department of Occupational Safety and Health (DOSH), Malaysia.

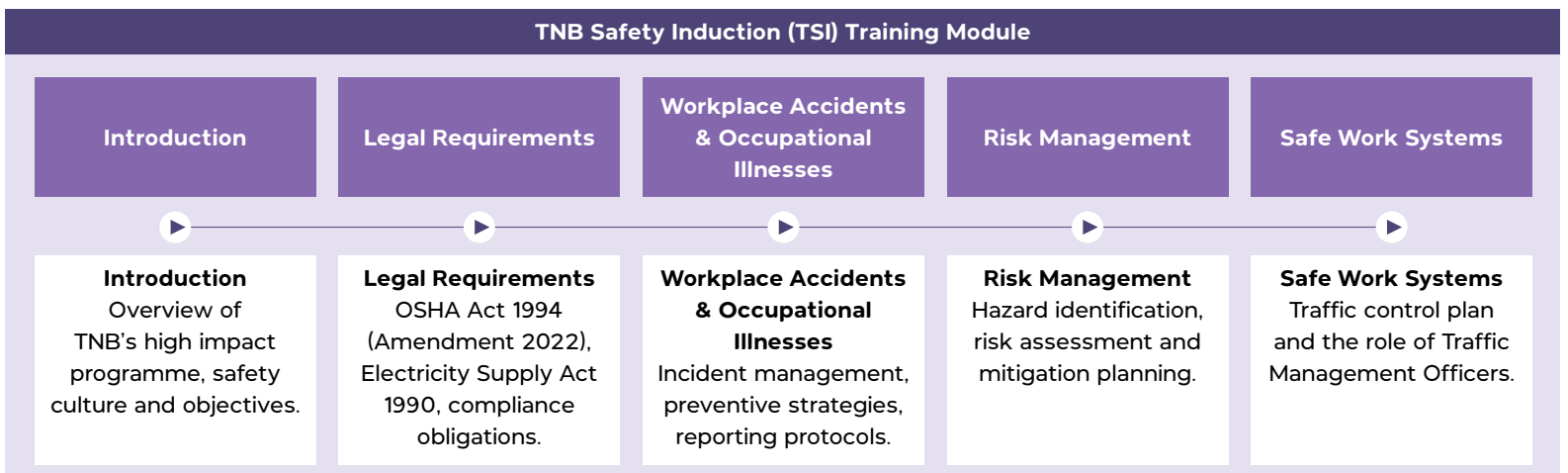
For the 2024/2025 cycle, the Distribution Network Division (Kota Bharu, Kelantan) achieved the highest compliance level (Level 5) for both chemical and ergonomics elements.

Continuing this commitment into the 2025/2026 cycle, we nominated the Fleet Management Department in Malim Nawar and Lundang to participate in the programme, focusing on noise, ergonomics and chemical elements. The programme is scheduled for completion by March 2026.

### Health and Safety Training for Employees

We are committed to strengthening employee understanding and awareness of health and safety practices and culture, ensuring that safety remains a top priority in all our endeavours and is embedded in every aspect of our operations at TNB.

We have implemented the TNB Safety Passport (TSP) Training as a mandatory Group-wide safety and health training programme for employees. In 2025, we transitioned to the TNB Safety Induction (TSI) Training Module, which covers the following:



## SAFETY, HEALTH AND WELL-BEING

The TSI Training Module was developed as an online e-learning programme to ensure full accessibility for employees nationwide. In 2025, 100% of the TNB Group workforce completed the training.

To promote greater self-regulation among employees, we provide HSEMS implementation training to ensure they are equipped to apply health and safety practices in their respective workplaces. Our effort also extends to additional focused modules covering specific occupational health areas, such as Office Ergonomics (e-learning), Manual Handling and Chemical Handling.

### Safety Through Certified Competency

We place strong emphasis on developing and sustaining a highly competent workforce as a core foundation of our safety and operational governance. In line with statutory requirements, the Group ensures that Authorised Persons, Competent Persons and Safety and Health Officers (SHOs) are properly certified by relevant statutory bodies such as the Energy Commission (EC), the Department of Occupational Safety and Health (DOSH) and the Construction Industry Development Board (CIDB) and are equipped with the required knowledge to perform their roles responsibly.

Beyond mandatory certifications, we embed continuous capability building through a structured safety learning journey. This includes tailored technical training, refresher modules and leadership-focused programmes to deepen understanding of risk control, safe work procedures and regulatory expectations. This progressive approach ensures that employees not only meet legal obligations but are also empowered with the practical competence needed to prevent incidents and maintain safe system operations.

By consistently investing in skills enhancement, professional development and knowledge retention, we reinforce a culture of safety excellence and strengthen our long-term capacity to deliver safe, compliant and resilient operations across the organisation.

### Public Education and Engagement on Electrical Safety

We are committed to promoting public safety and community well-being through continuous education and engagement on electrical safety. As a national utility provider, we conduct Malaysia Energy Literacy Program (MELP), which includes *Kempen Keselamatan Elektrik Bersama Pengguna*, our flagship public electrical safety awareness campaign delivered through community outreach initiatives, school engagements and social media platforms to educate the public on the safe use of electricity, prevention of electrical hazards and emergency response preparedness. These initiatives aim to reduce accidents, enhance community awareness and foster shared responsibility for safety. Through partnerships with local authorities, educational institutions and media platforms, we ensure that safety messages reach diverse audiences across both urban and rural areas.

Based on our diagnostics, we identified key target groups, including plantation workers, paddy field communities and fishermen, due to their exposure to overhead lines and work in wet conditions. We also identified the general public as a priority group due to risks associated with household electrical hazards involving service wires.

To address these risks, we leveraged the platform to engage and educate plantation workers and raise awareness of electrical safety. One such initiative was held in Bota, Perak, as part of the *Kempen Keselamatan Elektrik* on 3 September 2025 and was officiated by Yang Berhormat Tuan Haji Akmal Nasrullah Bin Mohd Nasir, then Deputy Minister of Energy Transition and Water Transformation (PETRA).



*Kempen Keselamatan Elektrik* was held in Dewan FELCRA Nasaruddin, Bota, Perak to enhance electrical safety awareness and energy literacy among the local community, particularly high-risk groups such as oil palm smallholders, paddy farmers, fishermen and the general public.



Our CEO, Datuk Ir. Ts. Shamsul Bin Ahmad, together with CSO, Ms Leo Pui Yong and Head of OSHE Operational Excellence, Mr Lin Shon Nyin, participated in a site engagement focused on strengthening electrical safety awareness during the same *Kempen Keselamatan Elektrik* programme held at Bota, Perak.

## SAFETY, HEALTH AND WELL-BEING



Oil palm smallholders, paddy farmers and fishermen remain the three key target communities under the *Kempen Keselamatan Elektrik*, conducted through the MELP, to educate the public on the safe use of electricity, prevent electrical hazards and reduce accidents.

[For more information on MELP, refer to Community Development and Social Impact on page 195.](#)

### Flood Risk Preparedness Engagement

To safeguard communities during high-risk periods, we implement targeted public safety initiatives focused on electrical hazards. During the flood season, we conduct an integrated public safety campaign to raise awareness of electrical safety before, during and after floods. We engage customers in flood-affected states through multilingual print media, digital and radio advertisements, personalised myTNB engagements and visits to temporary flood shelters to distribute safety materials.

These messages were further shared on our social media platforms and collaborations with Key Opinion Leaders (KOLs), reinforcing the importance of electrical safety as part of disaster preparedness. Additionally, we work closely with the Energy Commission (EC) and local authorities to ensure electrical safety compliance for house renovations and TNB installations. Through these initiatives, we aim to foster a safer environment and promote sustainable practices within our communities.



## ENGAGEMENT WITH EMPLOYEES

### Fostering Healthy Relationship with Unions

We are committed to fostering transparent, constructive and collaborative engagement with our union partners as part of our broader commitment to safeguarding employee safety, health and well-being. Through regular dialogue with both executive and non-executive unions via periodic meetings, consultation platforms and information-sharing sessions, we ensure that union representatives remain informed of safety developments, emerging risks and ongoing improvement initiatives across our operations. This approach strengthens mutual trust, promotes shared responsibility for safe work practices and reinforces our accountability to employees and the communities we serve.

In 2025, we conducted engagement sessions with *Persatuan Eksekutif TNB (PET)*, *Kesatuan Percantuman Pekerja-Pekerja Tenaga Nasional Berhad (K3P)*, *Kesatuan Pegawai Perkhidmatan Sokongan TNB (SSOU)*, *TNB Executive Officers Association (EOA)* and *Persatuan Unit Keselamatan Tenaga Nasional Berhad (Perunika)* between August and October. These sessions focused on updates to safety governance, implementation progress and collaborative action on workplace health initiatives.

Moving forward, we are institutionalising these engagements by increasing the frequency from twice yearly to quarterly, while expanding opportunities for unions to actively participate in key safety programmes and corporate initiatives. This strengthened partnership reflects our commitment to inclusive stakeholder engagement and continuous improvement in occupational safety and health performance.

### Supporting Employees' Health and Wellness

#### Physical Fitness

We encourage employees to stay active through a range of programmes and initiatives across all employee platforms. All our employees are provided with subscription to TNB's wellness platform, a mobile application where they can stay fit and track their daily steps as part of TNB's initiative to promote fitness and an active lifestyle.

For Physical Wellness, we conduct basic health screenings for employees nationwide to monitor their health status. These screenings provide employees with a baseline to gauge their vital health statistics, including blood glucose levels, blood pressure and Body Mass Index (BMI). Where necessary, TNB's Wellness Team provides basic counselling and guidance to employees on lifestyle modifications to improve their overall health, with intervention programmes to support employees in quitting smoking.

## SAFETY, HEALTH AND WELL-BEING

In addition, our offices are equipped with facilities such as gyms, parks or walking/cycling tracks to further encourage employees to adopt a healthy lifestyle. Employees are also encouraged to make use of the 1-hour-weekly Wellness Hour activities to participate in fitness-related activities.



Our offices are equipped with fitness facilities that enable employees to maintain their health and fitness during the allocated weekly Wellness Hour.

In 2025, we embarked on a fitness programme for 100 identified employees, which aimed to revitalise their fitness journey in all aspects, focusing on exercise, nutrition and healthy lifestyle practices. Participants engaged with their assigned coaches through daily and weekly progress reviews and monitor improvements.

Weekly 'Wellness Wednesday' webinars are held throughout the year in collaboration with panel hospitals, covering a range of health and wellness-related topics and open to all employees and retirees. These sessions aim to increase awareness of holistic well-being and promote preventive care through healthier habits and lifestyles. In addition to common health issues such as cancer, cardiovascular disease and diabetes, the programme also covers emerging public health topics, including tuberculosis (TB), dengue, malaria, influenza and hand, foot and mouth disease (HFMD), covering more than 40 health and wellness topics.

### Health and Wellness Fair

In 2025, we have organised a Health and Wellness Fair with the support of Pusat Darah Negara, TNB panel and non-panel hospitals, fitness centres and health-related vendors. The event aimed to promote a healthy and active lifestyle among employees, while raising awareness of work-life balance and holistic well-being, encompassing both physical and mental health.

Among the key highlights were health talks, employee engagement activities, free basic health screenings and expert consultations, providing employees with direct access to essential health services and knowledge. The initiative also focused on early prevention of non-communicable diseases (NCDs) such as heart disease, diabetes, hypertension and obesity, while fostering a healthier, more positive and productive work environment. In addition, the programme supported national efforts in maintaining adequate blood supply.



The Health and Wellness Fair provided employees with access to health screenings, expert consultations and wellness activities, supporting a healthier and more informed workforce.

## SAFETY, HEALTH AND WELL-BEING

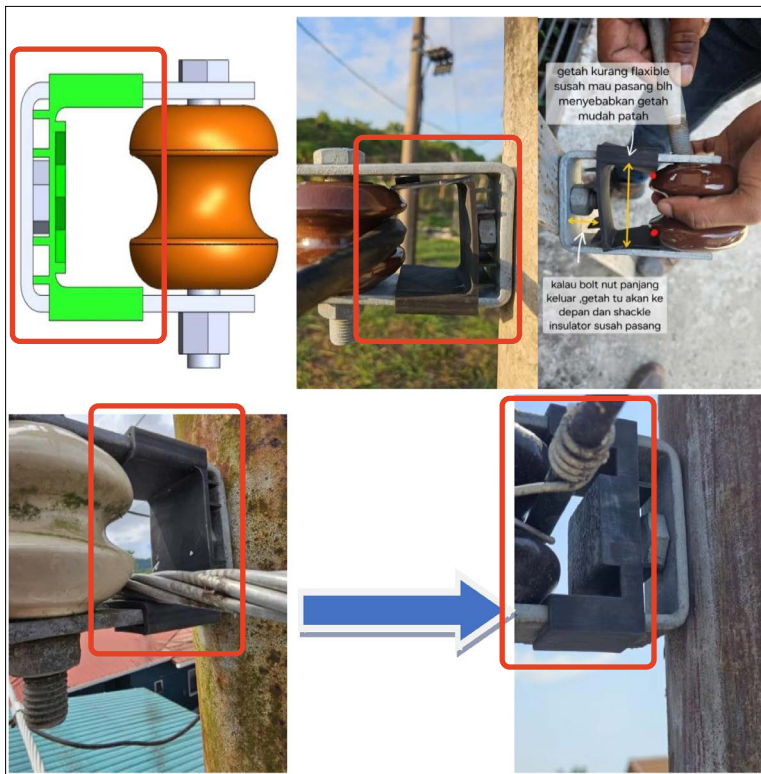
### Mental Health

Recognising the importance of mental health, we have introduced initiatives to support awareness and management of mental well-being. Monthly "Are You OK? Jom Sembang" webinars are conducted to address mental health issues, featuring sessions led by panel hospitals and in-house medical doctors. These webinars cover a range of topics, including anxiety, 'Hello Minda Bahagia 2025', 'Tua Yang Sihat' and other mental health-related topics.

### ENGINEERING

We continue to strengthen our safety performance by prioritising engineering controls to help prevent incidents and reduce operational risks by improving systems, equipment and remote operations. Key initiatives include enhancements to 11 kV switchgear tripping mechanisms to improve fault response and system protection, as well as the deployment of advanced Supervisory Control and Data Acquisition (SCADA) automation systems for remote switching operations. These measures reduce direct human interaction with live electrical equipment, minimising employee exposure to electrical hazards and lowering the risk of human error during critical operations.

In addition to strengthening operational safety for employees, we also continue to implement engineering measures to mitigate electrical safety risks to the public. The use of bare conductors on steel poles poses a potential safety hazard, particularly where conductor defects may result in contact with the associated pole fittings, such as D-brackets, leading to current leakage. To address this risk, insulating covers for D-brackets and poles have been developed to provide a protective barrier between the conductor and the steel structure. These protective measures enhance overall system safety and help minimise the risk of electrocution to the public and livestock. Installation efforts are prioritised in high-risk locations, including schools and areas with high levels of public access or interaction with electrical infrastructure.



D-Bracket insulator covers are installed to prevent current leakage flowing through metal D-brackets and steel poles.



Gambar 5 – Prototaip 1  
 Gambar 6-7 (kanan atas dan bawah) – Prototaip 2

Installation of pole covers to prevent human and livestock contact with steel poles, reducing the risk of electrocution.

To further strengthen public safety and address safety risks, we implement phased asset replacement programmes across the distribution network. In Sabah, this includes the progressive upgrading of bare conductors to insulated conductors, targeting 9,808 circuit-km by 2025, as well as the replacement of conventional steel poles with non-conductive spun concrete poles across the distribution network.

Collectively, these initiatives reduce risks associated with corrosion, structural failure and electrical hazards, while improving safety, reliability and operational efficiency. Beyond enhancing reliability and reducing potential incidents, these engineering interventions also support our broader sustainability goals by extending asset lifespan, reducing maintenance frequency and minimising the environmental footprint of network operations. To ensure continuous improvement, engineering controls are reviewed regularly through safety audits, incident investigations and root-cause analysis for incident investigation, with lessons learned cascaded across business units.



### INSPECTION AS KEY ENFORCEMENT MECHANISM

We strengthen our HSE governance through targeted inspections across our KFAs. As part of a risk-based assurance approach, each Business Entity (BE) declares the total number of sites under its responsibility, representing its overall risk exposure for each KFA.

Inspections are carried out independently by three (3) groups Operations, the Corporate HSE team and HSE personnel at dedicated operating BE. Each party conducts its inspections separately, using randomly selected sites based on the declared KFA exposure. This ensures objectivity, consistency and broad coverage across our operational footprint.

Compliance with identified HSE requirements is assessed during these inspections, with any gaps documented and assigned for corrective action. Where findings indicate systemic issues, the corrective actions are reviewed and replicated across the Group to ensure long-term, organisation-wide improvements. Progress, trends and closure status are monitored and consolidated periodically for reporting to top management.

This independent, risk-informed inspection process reinforces TNB's culture of accountability, drives continuous improvement in safety performance and supports our long-term commitment to a zero-harm workplace.

#### **Mandatory Installation of Dashcams in All TNB Vehicles**

As part of strengthening safety enforcement and enhancing road safety practices, we have mandated the installation of dashcams in all company vehicles since 2023. Dashcams are also required for all new TNB vehicle procurements. This initiative aims to improve driving accountability, support incident investigations and promote safer driving behaviour among employees.

The use of dashcams provides objective evidence in the event of road incidents, enabling timely and accurate assessments while reinforcing our commitment to preventing road-related accidents across our operations.

#### **Revitalising Safety Excellence Management System (RSEMS)**

While employee safety remains our top priority, we also focus on workplace comfort to enhance the overall employee experience. This helps reduce work-related injuries and illnesses, fostering safe, healthy and productive working conditions. We have implemented the Revitalising Safety Excellence Management System (RSEMS) as an ongoing initiative to address both safety and workplace conditions, targeting TNB-owned stores and yards nationwide.

RSEMS aims to ensure that regulatory requirements and internal standards of health, safety and environment at these locations are adhered to, while also placing emphasis on workplace comfort. Assessments are conducted in two (2) parts: verification of technical HSE requirements and employee satisfaction interviews. In 2025, the focus was on implementing corrective actions identified in the previous cycle.

To ensure a stable and consistent implementation of RSEMS, a guideline was developed and issued to guide business entities in their effective implementation.

Aligned with our long-term ESG agenda, RSEMS represents a strategic convergence of operational discipline and sustainability values. By safeguarding the safety and well-being of our workforce and minimising environmental risks, it supports broader goals of building trust and enhancing the overall employee experience.

Gaps identified during assessments are addressed through phased action plans, with progress monitored and reported periodically to the TNB HSE Committee until closure.

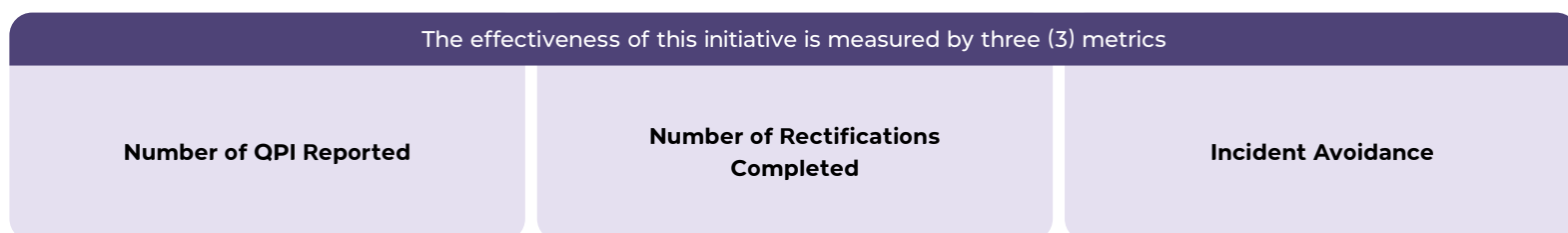
In 2025, all 220 locations were audited, with 49 actions identified and implementation carried out.

## SAFETY, HEALTH AND WELL-BEING

### Quality Potential Incident (QPI) Initiative

We continue to strengthen our safety culture through a proactive incident reporting initiative designed to identify risks before they lead to harm. This initiative encourages employees and contractors to report hazards, near misses and unsafe conditions without fear of reprisal, enabling early detection of risks across our operations.

By systematically analysing reported cases, we implement timely corrective and preventive actions, strengthen engineering and administrative controls and address behavioural or process gaps that may contribute to risk.



This approach enhances transparency and organisational learning, while reinforcing our commitment to a zero-harm workplace. Early detection of potential incidents enables more targeted interventions, reduces the likelihood of serious events and strengthens a culture of shared responsibility for safety.

Through continuous monitoring, trend analysis and cross-business-unit learning, the incident reporting initiative plays a critical role in driving sustained improvements and embedding a prevention-first mindset throughout the organisation. As we advance the use of the QPI platform, we will further enhance its capabilities through AI-driven digitalisation to enable predictive analysis.



### OSHA COMPLIANCE

While the QPI initiative focuses on prevention, OSH performance metrics help measure the effectiveness of these efforts in reducing workplace incidents. All reported OSH rates are calculated based on the number of incidents per 1,000,000 manhours. This approach enables consistent benchmarking of safety performance across different operational scales and aligns with recognised international reporting practices.

OSH Indicators	Employees	Contractors
<b>Fatality Rate</b>	0.03	0.04
<b>Total Recordable Incident Rate (TRIR)</b>	4.50	0.77
<b>Lost Time Injury Frequency Rate (LTIFR)</b>	0.83	0.21
<b>Restricted Work Duty (RWD), Medical Treatment Injury (MTI)</b>	44	7
<b>First Aid</b>	49	5
<b>Dangerous Occurrence</b>		12
<b>Near Miss Frequency Rate (NMFR)</b>	0.24	-
<b>Potential Incident Reports</b>	114,791	-

### Performance Analysis

*[SASB: IF-EU-320a.1]*

In 2025, three (3) fatalities were recorded. We deeply regret the loss of lives and remain committed to preventing such tragedies through continuous improvement in our safety practices through enhanced risk controls, targeted training and stricter enforcement of the Life Saving Rules, with the goal of achieving zero fatalities.

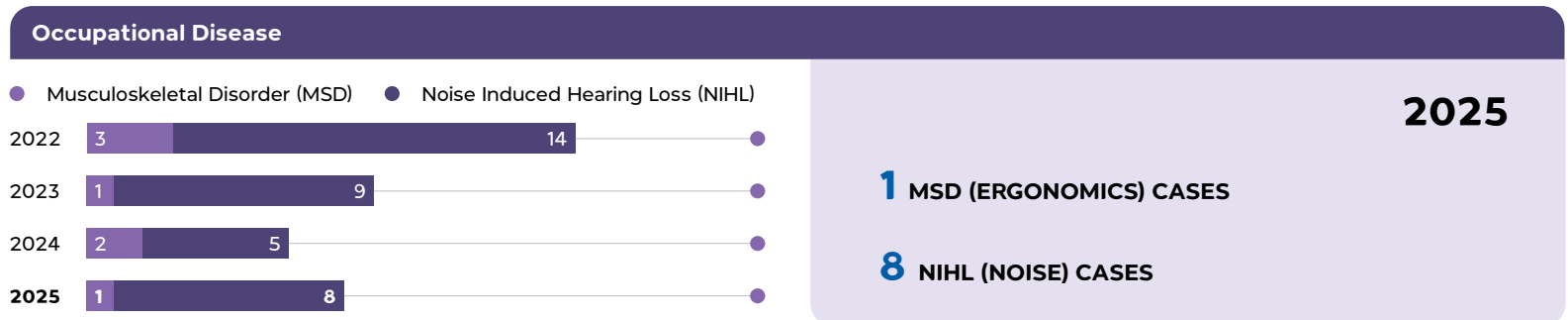
Our online potential incident reporting system generates more precise analyses and improves reporting guidance and data collection, enabling us to identify and assess potential incidents for proactive mitigations.

Near misses are defined as incidents that could have resulted in injury, illness or damage but did not, due to chance or timely intervention. At TNB, near misses are identified through routine observations, inspections or employee reports. Employees are encouraged to report all near misses promptly through the designated Health, Safety, and Environment (HSE) reporting channels, such as the TNB Safety Information System (TSIS).

## SAFETY, HEALTH AND WELL-BEING

The LTIFR for our employees improved to 0.83 in 2025, from 0.86 in 2024, consistently meeting our target of less than 1.0. This reflects continued progress in strengthening workplace safety. In addition, we benchmark our performance against global utility peers with similar operations, where the industry average stands at 0.62. While our LTIFR remains above this benchmark, moving forward, we will continue to monitor and enhance our safety performance.

Noise compliance audits and enhancements for the Specification of Noise Risk Assessment and Audiometry Test resulted in clearer guidance for effective implementation of the Hearing Conservation Programme (HCP). TPGSB has also developed a comprehensive HCP customised for power plant employees.

**HSE DIGITALISATION**

Technology and data analytics are increasingly integrated into our safety management practices to enhance early detection of hazards and predictive risk management. By reinforcing a safety-first culture and embedding risk ownership in all operations, we aim to minimise the likelihood and severity of workplace incidents while ensuring compliance with national and international safety regulations.

In 2025, we migrated our Tenaga Safety Passport (TSP) training module to the TNB Safety Induction (TSI) training module in support of our digitalisation aspirations. Delivered through the People Matters Better Brighter (PMBB) digital platform and Learning Management System (LMS), this initiative is designed to reach all employees with essential safety training. The TSI module is mandatory for all employees to complete annually, ensuring consistent awareness and adherence to safety standards. It also supports compliance with Section 15 of the Occupational Safety and Health Act 1994, reinforcing employers' responsibility for workplace safety and health.

We further advanced our safety and digital integration efforts by incorporating the Tenaga Safety Induction System (TSIS) platform into the existing eHSE module. This integration enables employees to report safety incidents directly through a centralised digital system, enhancing responsiveness and transparency. The upgraded platform consolidates multiple safety and compliance and compliance online modules into a one-stop centre, including Non-Conformance Report (NCR), Notice, Compound & Lawsuit (NCL), Safety and Health Committee Online, Chemical Register and Legal Compliance. This consolidation simplifies processes, improves data accessibility and empowers employees to contribute to efficient and transparent reporting.

Our HSE digitalisation efforts contribute to our broader sustainability goals by aligning safety improvements with environmental efficiency and operational resilience. Investments in safer, smarter technologies, such as the TNB HSE performance dashboard, which provides insights based on both lagging and leading indicators, foster a culture of continuous improvement. These efforts position us as a forward-looking utility that leverages innovation to protect people, strengthen performance and support a just and responsible energy transition.

**HSE COMPLIANCE EXTENDED TO CONTRACTORS**

As part of our commitment to uphold the highest standards of HSE across our operations and supply chain, we continue to strengthen our contractor management through the implementation of the Contractor Management Plan (CMP). Recognising the critical role that contractors play in the successful delivery of projects and services, we have introduced enhanced requirements within tender documentation to ensure that only capable and responsible partners are engaged.

## SAFETY, HEALTH AND WELL-BEING

These enhancements integrate four (4) key elements that reinforce proactive risk management, fair evaluation and sustainable business practices, which are:

### OCCUPATIONAL SAFETY AND HEALTH (OSH) CAPABILITY QUESTIONNAIRE

The objective of the OSH capabilities assessment is to screen potential contractors during the contract evaluation process. Through this assessment, we establish a list of contractors with the necessary OSH capabilities to carry out work and manage associated risks effectively. The assessment covers areas such as OSH policy, leadership commitment, OSH planning and implementation, OSH performance, personnel competency and compliance with legal and regulatory requirements. It provides an overview of the status of a contractor's workplace health and safety management system. The questionnaire is designed to determine whether the contractor has demonstrated a basic level of commitment and capacity to achieve effective workplace health and safety management.

### INITIAL RISK ASSESSMENT (IRA)

Initial risk assessment is the first step in evaluating potential risks associated with a project, activity, process or environment. It involves identifying hazards, assessing their likelihood and severity and determining which risks require mitigation.

By embedding risk assessment at the planning stage, we promote a proactive safety mindset and continuous risk control throughout project execution.

### TNB HSE REQUIREMENTS FOR CONTRACTORS

All prospective contractors must acknowledge and commit to comply with our HSE requirements. These requirements articulate our expectations on HSE governance, performance monitoring, incident reporting and continuous improvement. Incorporating this element into all types of contracts ensures alignment between our HSE requirements and contractor practices, fostering a consistent and transparent approach to safety and environmental stewardship across the supply chain.

### SUB-CONTRACTOR SELECTION CRITERIA

Selecting a subcontractor is a critical decision that impacts the overall quality, cost and timeline of a project. Common evaluation criteria include experience and expertise, financial stability, safety record and compliance and environmental considerations. This requirement ensures that all tiers of contracting partners uphold the same level of professionalism, ethical conduct and commitment to HSE as we do.

The integration of these four (4) elements into tender documents enhances transparency, accountability and consistency in contractor management. It supports our commitment to a safe and healthy work environment by ensuring that only competent and responsible contractors are engaged in our projects.

## RISK MANAGEMENT

*IFRS 51.43(a)(b), 44(a)(b)(c); IFRS 52.24, 25(a)(b)(c)*

Given the nature of our operations across generation plants, transmission networks and distribution systems, our employees and contractors are exposed to inherent occupational hazards such as electrical risks, working at heights, confined spaces and heavy equipment handling. Any workplace accident can have serious consequences, including injury or loss of life, operational disruption and reputational damage. Such incidents could also lead to financial implications in the form of compensation claims, regulatory penalties or legal action.

In addition, our assets are widely dispersed and embedded within communities, spanning power stations, substations, transmission lines, distribution networks and customer interfaces. This results in constant interaction with the public. Our ubiquitous presence means that members of the public may be exposed to electrical hazards arising from proximity to live equipment, overhead lines, underground cables or damaged infrastructure, particularly during extreme weather events or unauthorised activities.

We therefore place strong emphasis on public safety as a core responsibility, extending beyond operational boundaries. This includes rigorous asset design, maintenance and inspection programmes to ensure infrastructure integrity, as well as the implementation of safety features, warning systems and physical controls to minimise risk. Complementing these technical measures, we actively conduct public awareness and educational initiatives on electrical safety, working closely with communities, schools, local authorities and other stakeholders to promote safe behaviour around electrical installations while ensuring reliable and continuous electricity supply.

This HSE risk is significant as it directly affects our operational continuity, employee morale, stakeholder trust and ability to deliver energy safely and reliably. To mitigate this, we maintain a comprehensive Occupational Safety and Health (OSH) Management System that is aligned with ISO 45001 standards. We enforce strict safety protocols, conduct regular hazard identification and risk assessments and ensure continuous training and competency development across all levels. Leadership accountability is embedded through structured safety governance, while incident reporting and root-cause analysis are used to drive systemic improvement.

## HAZARD IDENTIFICATION, RISK ASSESSMENT AND RISK CONTROL (HIRARC)

We systematically identify work-related hazards, assess health and safety risks and establish appropriate controls to eliminate hazards and mitigate risks through our Hazard Identification, Risk Assessment and Risk Control (HIRARC) procedure. Developed in alignment with guidelines from the Department of Occupational Safety & Health (DOSHS), HIRARC forms the foundation of our safety protocols.

HIRARC procedures are mandatory and must be conducted prior to the commencement of all new and Existing Projects, including maintenance activities. We also conduct regular HIRARC training sessions to ensure comprehensive understanding and effective implementation across our operations.

Mitigation actions for fatality risks are implemented through a structured, risk-based approach. Assets with the highest potential for severe consequences are prioritised through diagnostics, condition assessments and risk exposure mapping.

This process identifies hotspot areas based on recurring incidents, assets involved or economic activities exposed to electrical hazards or located in close proximity to them such as palm oil plantations, paddy fields and water-adjacent areas. This enables targeted interventions, including engineering controls, enhanced inspections, asset upgrades, and focused safety programmes.

By concentrating resources on high-risk areas, we aim to reduce fatality exposure and strengthen overall safety performance across our operations in Peninsular Malaysia and Sabah.

Specific risk assessments are also conducted to assess exposures related to the workplace and work conditions, including:

Risk Assessment	Description
<b>Environmental Impact Assessment (EIA)</b>	Identifying, predicting, evaluating and communicating the environmental impacts, both beneficial and adverse, of a proposed development activity, as well as the mitigation measures required to protect the environment
<b>Chemical Health Risk Assessment (CHRA)</b>	identifies chemical hazards arising from the use, handling, storage or transportation of chemicals in the workplace and recommending controls to reduce exposure and minimise harm to workers, in compliance with the Occupational Safety and Health (Use and Standard of Exposure to Chemical Hazardous to Health) Regulations 2000
<b>Noise Risk Assessment (NRA)</b>	Identifying noise-related risks in the workplace to prevent hearing loss and ensure a safe working environment and compliance with legal obligations, in compliance with the Occupational Safety and Health (Noise Exposure) Regulations 2019
<b>Ergonomic Risk Assessment (ERA)</b>	Evaluating workplace activities to identify and reduce the risk of muscle injury or discomfort arising from ergonomic risk factors, including exposure to repetitive motions, awkward postures, static postures, forceful movements, vibration and contact stress, in line with the Guidelines on Ergonomics Risk Assessment at Workplace 2017

## INCIDENT INVESTIGATION

We refined our incident investigation process by incorporating the Human Factor Analysis (HFA), a methodology developed by the Energy Institute in the United Kingdom, to effectively identify the cause of human errors in an accident. This approach aims to ensure fair and objective assessment when human errors contribute to fatal accidents, prior to the application of consequence management.

To operationalise this approach, 26 employees from various business entities were trained in-house by a representative from the Energy Institute, where the methodology was originally developed. Following this, HFA has since been integrated into our consequence management process. In 2025, one of two potential LSR cases was identified as wilful negligence.

All fatal incidents involving employees, contractors and the public are presented to JEK and the Board Sustainability and Risk Committee (BSRC) for review. These committees deliberate on the root causes of the incidents and the proposed mitigation measures based on the 4E approach (Education, Engagement, Engineering and Enforcement). Progress on the implementation of corrective actions is reported periodically to the HSE Committee until all actions are completed and the incident is formally closed.

## SAFETY, HEALTH AND WELL-BEING

## OUR PERFORMANCE

IFRS S1.45, 46, 47, 48, 49, 50, 51, 52, 53, B50

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>OCCUPATION HEALTH AND SAFETY</b>								
<b>WORK RELATED INJURY</b>								
<b>Number of Fatalities as a Result of Work Related Injuries</b>								
GRI 403-9	Road Accident/Vehicle (Employees)	Number	2	0	0	-	-	
	Bitten/Stung by Animals/Wild Insects/Venomous (Employees)	Number	1	0	0	-	-	
	Drowning (Employees)	Number	0	0	1	-	-	
	Electrocuted/Flashover (Contractor)	Number	1	2	1	-	-	
	Fall from Height (Contractor)	Number	0	1	0	-	-	
	Struck by Falling Object (Contractor)	Number	0	1	0	-	-	
	Road Accident/Vehicle (Contractor)	Number	1	0	1	-	-	
<b>Number of Fatalities as a Result of Work-Related Injuries</b>								
Bursa C5(a) [Health and Safety]	Employees	Number	3	0	1	Zero fatalities	-	
	Contractors	Number	2	4	2	Zero fatalities	-	
GRI 403-9	Total (Employees and Contractor)	Number	5	4	3	Zero fatalities	-	
<b>Fatality Rate</b>								
IF-EU-320a.1	Employees	Per 1,000 workers	0.09	0.00	0.03	Zero fatalities	-	
GRI 403-9	Contractors	Per 1,000 workers	0.08	0.01	0.04	Zero fatalities	-	
<b>Number of Recordable Work-Related Injuries</b>								
GRI 403-9	Employees	Number	125	129	154	-	-	
	Contractors	Number	35	60	35	-	-	
<b>Recordable Work-Related Injuries Frequency Rate</b>								
GRI 403-9	Employees	Per million manhours	1.24	1.26	1.75	-	-	
	Contractors	Per million manhours	0.46	0.62	0.31	-	-	
<b>Total Recordable Incident Rate (TRIR)</b>								
IF-EU-320a.1	Employees	Per 1,000 workers	3.61	3.71	4.50	-	-	
	Contractors	Per 1,000 workers	1.35	1.53	0.77	-	-	
<b>Number of Hours Worked</b>								
GRI 403-9	Employees	Hours	100,963,177	102,685,789	87,826,897	-	-	
	Contractors	Hours	76,558,411	97,412,276	113,193,185	-	-	

## SAFETY, HEALTH AND WELL-BEING

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>WORK RELATED INJURY</b>								
<b>LTI Cases by Incident Type (Employees)</b>								
GRI 403-9	Road Accident/Vehicle	Number	20	35	20	-	-	
	Slip/Fall on the same level	Number	23	28	16	-	-	
	Fall of persons from heights	Number	10	4	2	-	-	
	Fall into depth	Number	0	0	2	-	-	
	Struck by Falling Objects	Number	12	4	3	-	-	
	Struck by Moving Objects	Number	0	0	2	-	-	
	Struck by Equipment	Number	5	3	12	-	-	
	Struck by Machines	Number	0	0	1	-	-	
	Bitten/Stung by Animals/ Wild Insects/Venomous	Number	4	6	3	-	-	
	Electrocuted/Flashover	Number	1	4	6	-	-	
	Lifting	Number	0	0	3	-	-	
	Eye injury	Number	0	2	2	-	-	
	Contact with Chemical	Number	0	0	1	-	-	
<b>Total (Employees)</b>	<b>Number</b>	<b>75</b>	<b>86</b>	<b>73</b>	-	-		
<b>LTI Cases by Incident Type (Contractors)</b>								
GRI 403-9	Road Accident/Vehicle	Number	6	15	3	-	-	
	Slip/Fall on the same level	Number	5	4	4	-	-	
	Fall of persons from heights	Number	0	6	0	-	-	
	Fall into depth	Number	0	0	2	-	-	
	Struck by Falling Objects	Number	4	14	1	-	-	
	Struck by Moving Objects	Number	0	0	1	-	-	
	Struck by Machines/ Equipment	Number	2	2	4	-	-	
	Bitten/Stung by Animals/ Wild Insects/Venomous	Number	3	7	2	-	-	
	Electrocuted/Flashover	Number	1	3	5	-	-	
	Lifting	Number	0	0	1	-	-	
	Eye injury	Number	0	0	0	-	-	
	Contact with Hot Substances/Chemical	Number	0	1	0	-	-	
	Trapped	Number	0	0	1	-	-	
<b>Total (Contractors)</b>	<b>Number</b>	<b>21</b>	<b>52</b>	<b>24</b>	-	-		
<b>Lost-Time Injuries Frequency Rate (LTIFR)</b>								
Bursa C5(b) [Health and Safety]	Employees	Per million manhours	0.74	0.87	0.83	-	-	
	Contractors	Per million manhours	0.27	0.53	0.21	-	-	
GRI 403-9								
<b>Number of Lost Days</b>								
GRI 403-9	Employees	Number	19,690	2,018	6,905	-	-	
	Contractors	Number	12,594	25,084	12,314	-	-	

## SAFETY, HEALTH AND WELL-BEING

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>WORK RELATED INJURY</b>								
<b>Lost Days Severity Rate</b>								
GRI 403-9	Employees	Per million manhours	195.02	19.65	78.62	-	-	
	Contractors	Per million manhours	164.50	257.50	108.79	-	-	
<b>Number of Near Misses</b>								
GRI 403-9	Employees	Number	23	24	21	-	-	
<b>Near Miss Frequency Rate (NMFR)</b>								
IF-EU-320a.1	Employees	Per million manhours	0.23	0.23	0.24	-	-	
<b>WORK RELATED ILL HEALTH</b>								
<b>The Number of Fatalities as a Result of Work-Related ill Health</b>								
GRI 403-10	Employees	Number	0	0	0	-	-	
	Contractors	Number	0	0	0	-	-	
<b>The Number of Cases of Recordable Work-Related ill Health for Employees</b>								
GRI 403-10	Hearing impairment caused by noise	Number	9	5	9	-	-	
	Intervertebral disc disorders	Number	1	2	1	-	-	
	Total cases for employees	Number	10	7	10	-	-	
<b>WORKERS COVERED BY OHS MANAGEMENT SYSTEM</b>								
<b>Number of Employees and Percentage of Employees Who are Covered by Occupational Health and Safety Management System</b>								
GRI 403-8	Employees	Number	34,543	34,883	34,857	-	-	
	Employees	%	100	100	100	-	-	
<b>Number of Employees and Percentage of Contractors Who are Covered by Occupational Health and Safety Management System</b>								
GRI 403-8	Contractors	Number	27,781	39,249	45,738	-	-	
	Contractors	%	100	100	100	-	-	
<b>HEALTH &amp; SAFETY TRAINING</b>								
<b>Number of Training Hours</b>								
	Employees	Number	154,204	130,413	139,852	-	-	
<b>Employees Trained on HSE Standards</b>								
Bursa C5(c) [Health and Safety]	Number of employees trained on HSE standards	Number	14,014	13,973	34,963	-	-	
	Percentage of employees trained on HSE standards	%	40.57	40.06	100.00	-	-	

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

# OUR SHARED PATH TOWARDS SUSTAINABILITY

THIS SECTION INCLUDES THE FOLLOWING:

MT 11	BUSINESS ETHICS AND CORPORATE GOVERNANCE	164
MT 12	LABOUR RIGHTS AND EMPLOYMENT CULTURE	175
MT 13	COMMUNITY DEVELOPMENT AND SOCIAL IMPACT	192
MT 14	SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN	203
MT 15	DIGITAL TRUST AND CYBERSECURITY	214



# MT 11 BUSINESS ETHICS AND CORPORATE GOVERNANCE



## WHY IS IT IMPORTANT?

Strong governance and ethical business conduct are fundamental to creating long-term value for the nation and our shareholders. We uphold responsible business practices as a crucial part of delivering sustainable financial performance.

By maintaining high standards of ethics across our core activities, we reinforce accountability, transparency and informed decision-making throughout our operations. In addition, we maintain a corporate governance structure that complies with the Malaysian Code on Corporate Governance (MCCG), while aligning with international standards and best practices. This is to strengthen the effectiveness of our business operations, support sustainable growth and reinforce stakeholder confidence through sound governance and compliance.

## OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18 (a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Maintaining Good Governance to Drive an Ethical and Accountable Workforce				Risk: Anticipated Business Growth and Workforce Expansion Increases Risk of Unethical Practices			
<b>Description</b>	<p>TNB has maintained a robust approach to business ethics and corporate governance in the short (2026) and medium-term (2027-2030) term by strengthening human governance principles across the organisation. This includes embedding clear ethical standards, promoting accountability, and enhancing transparency in decision-making processes.</p> <p>By providing ethics training, establishing robust reporting channels, and integrating governance frameworks into daily operations, TNB can cultivate a culture of integrity, reduce the risk of misconduct and improve stakeholder trust. Strengthening human governance not only supports compliance with regulatory requirements but also enhances organisational resilience, employee engagement and long-term corporate reputation.</p>				<p>TNB's extensive operations, with anticipated business growth and a workforce expansion of over 35,000 employees, in construction, maintenance, and infrastructure projects nationwide combined with a high volume of procurement and payment transactions, expose the organisation to the risk of unethical practices.</p> <p>TNB's operational nature may expose the organisation to unethical practices by employees or vendors, including false claims, manipulation of contract terms, inflated invoicing, or payments for incomplete or substandard work. Such actions could lead to regulatory fines, legal disputes, increased operating costs, and reputational damage.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens organisational trust and operational integrity by reducing misconduct, fraud exposure and reputational risks across procurement and workforce processes.</li> <li>Enhances long-term resilience through consistent ethical conduct, transparency and accountable decision-making embedded throughout TNB's value chain.</li> </ul>				<ul style="list-style-type: none"> <li>Undermines TNB's credibility, erodes stakeholder trust and damages its brand image and reputation.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Drives prioritisation of strong governance controls, ethics training, internal audits and zero-tolerance frameworks to safeguard organisational credibility.</li> <li>Informs leadership decisions to reinforce reporting channels, compliance systems and oversight mechanisms aligned with Malaysian Anti-Corruption Commission (MACC) Act and corporate governance standards.</li> </ul>				<ul style="list-style-type: none"> <li>Strengthens governance structures in line with the MACC Act through rigorous internal audits and ethics compliance.</li> <li>Deliver comprehensive ethics training and uphold zero-tolerance policies to prevent and mitigate fraudulent behaviour.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Reduces financial leakage, legal liabilities, and fraud-related losses, supporting stable cash flows and improved cost efficiency.</li> <li>Strengthens investor confidence and protects enterprise value by mitigating reputational damage and avoiding regulatory penalties.</li> </ul>				<ul style="list-style-type: none"> <li>Higher operating costs resulting from leakage in procurement costs and expenses due to fraud or corruption.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	-	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	-	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil

## GOVERNANCE IN ACTION

### BOARD OVERSIGHT AND ACCOUNTABILITY

Our governance framework establishes clear accountability for ethical conduct, with the TNB Board of Directors providing oversight and setting the tone from the top. The Board defines the Group's core values and approves governance standards to ensure governance principles are embedded across all business operations. The corporate integrity function is structured across three (3) levels: oversight, management and ownership. Strategic oversight is provided by the Board Integrity Committee (BIC), which ensures the organisation's direction aligns with its core integrity goals.

[Refer to pages 258–259 of the IAR for details of the TNB Corporate Governance, which includes the roles and responsibilities of TNB Board of Directors and sub-Boards.](#)

### MANAGEMENT ROLES AND INTEGRITY GOVERNANCE STRUCTURE

The TNB Board delegates accountability for business ethics and integrity to the management committee to ensure these critical areas receive focused oversight.

At the management level, integrity-related issues are reported to the Integrity Committee (IC), which ensures compliance and drives continuous improvement in governance. The IC is responsible for proposing practical solutions to address corruption and bribery risks, while reviewing the policies and procedures that maintain the TNB Corporate Integrity Management System (TCIMS). Meetings are conducted quarterly and as required.

At the operational level, Business Entities are accountable to identify and implement integrity initiatives supported by data-driven insights to strengthen business ethics and practices. Each division, department, and subsidiary is responsible for managing related risks and opportunities, ensuring accountability and the continuous improvement of governance standards across the organisation.

The Chief Integrity Development Officer (CIDO) reports functionally to the Board Integrity Committee (BIC), leads the independent Integrity Department and operates across these three (3) levels to establish frameworks for transparency, accountability, and ethical compliance. This ensures that strategic direction from the BIC is effectively translated into operational practices across all business entities.



## BUSINESS ETHICS AND CORPORATE GOVERNANCE

### GROUP GOVERNANCE POLICIES AND PROCEDURES

Our business ethics and corporate governance practices are governed by a comprehensive set of Group-wide policies, procedures and controls. This is aligned with the Malaysian Code on Corporate Governance (MCCG), applicable regulatory requirements and international best practices and standards. To maintain the expected ethical behaviour for the Group, we continuously review our policies, procedures and controls to ensure our business conduct remains aligned with regulatory shifts.

### GOVERNANCE, ETHICS AND COMPLIANCE RELATED POLICIES

- TNB Code of Business Ethics
- TNB Ethics & Integrity Policy
- TNB Anti-Bribery Policy
- TNB Gifts, Hospitality and Related Benefits Policy
- TNB Conflicts of Interest Policy
- TNB Whistleblowing Policy
- Integrity Pact and Committee Integrity Pledges Policy
- TNB Confidentiality Policy
- TNB Limits of Authority
- TNB's Group Financial Policies and Procedures (GFPP)

### RISK, SECURITY AND OPERATIONAL RELATED POLICIES

- TNB Risk Management Policy
- TNB Personal Data Protection Policy
- TNB Security Policy
- TNB ICT Security Policy and ICT Codes of Practice
- TNB Group Financial Policies and Procedures (GFPP)
- Distribution Network Division Asset Management Policy
- Grid Division Asset Management Policy
- TNB Power Generation Sdn. Bhd. Asset Management Policy

### PEOPLE AND WORKPLACE RELATED POLICIES

- TNB Diversity & Inclusion Policy
- TNB Communication Policy
- TNB Disciplinary Management Code
- TNB Safety & Health Policy
- TNB Labour Rights Policy Statement

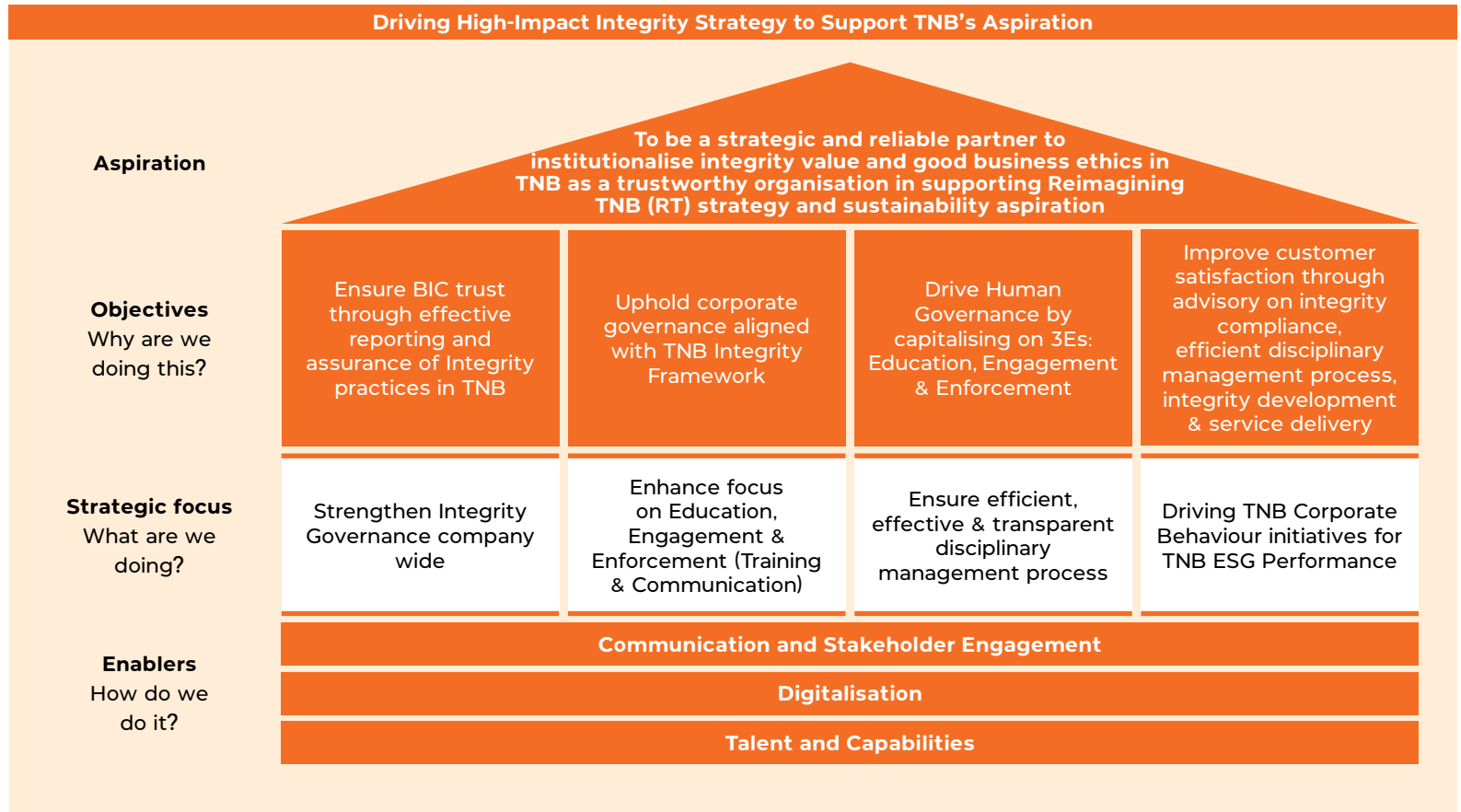
 For more information on our policies, please visit <https://www.tnb.com.my/ethics-governance/board-charter>.

### AUTHORITY DELEGATION MECHANISM

The TNB Limits of Authority (LOA) governs decision-making and establishes a structured framework for the approval limits across the Group. This mechanism outlines clear escalation and reporting procedures to the Board, ensuring that strategic oversight is maintained, while operational responsibilities are delegated to the President/Chief Executive Officer and senior management. Delegation includes the responsibility to recommend and approve both monetary and non-monetary limits of authority for operational and management decisions before execution. This clear distribution of responsibilities promotes transparent, accountable and efficient decision-making across both Board-level oversight and Management-level execution.

**STRATEGY**

The TNB Integrity Strategy aims to achieve ethical excellence, strengthen governance and reinforce stakeholder trust. It focuses on four (4) high-impact pillars, translating the strategy objectives into tangible actions.



**STRENGTHEN COMPANY-WIDE INTEGRITY GOVERNANCE**

The TNB Integrity Framework, known as the TNB Corporate Integrity Management System ("TCIMS"), is established based on the Anti-Bribery Management System ("ABMS") ISO 37001 standard. It aligns with ISO 37001 requirements and designed to prevent, detect, and address bribery risks through structured controls and compliance measures. TCIMS serves as our overarching integrity governance framework, integrating policies, risk management, awareness and monitoring activities to strengthen organisational integrity.

With TCIMS, we aim to institutionalise integrity values and promote good business ethics practices across the business. It reflects our commitment towards cultivating a culture of ethics, transparency, accountability and good governance across all levels of operations while strengthening integrity practices, preventing misconduct and ensuring compliance with applicable laws, regulations and corporate values. In addition, TCIMS also aligns with the Malaysian Anti-Corruption Commission (MACC) guidelines grounded in the five (5) T.R.U.S.T. principles which provide the foundational standards for anti-corruption compliance.

**T.R.U.S.T PRINCIPLES**

**T**

**Top Level Commitment**

Senior management assumes full accountability for regulatory compliance and promotes an organisational culture of integrity.

**R**

**Risk Assessment**

The organisation conducts systematic evaluations to identify corruption risks within internal processes and third-party relationships.

**U**

**Undertake Control Measures**

Robust due diligence and financial controls are implemented to mitigate specific identified corruption risks.

**S**

**Systematic Review, Monitoring & Enforcement**

Regular audits monitor control effectiveness while disciplinary actions ensure enforcement of ethical standards.

**T**

**Training & Communication**

Targeted communication and training programmes ensure all stakeholders understand their ethical and legal obligations.

## BUSINESS ETHICS AND CORPORATE GOVERNANCE

### TNB CORPORATE INTEGRITY MANAGEMENT SYSTEM (TCIMS)

The TNB Corporate Integrity Management System (TCIMS) serves as our primary objective to promote good business ethics and mitigate corruption risks. The TCIMS integrates four (4) policies to govern business operations across the Group.

#### Anti-Corruption through TNB Anti-Bribery Policy

- **Zero-Tolerance Mandate:** Prohibits all forms of bribery and corruption including offering, soliciting, or accepting bribes across all global operations and jurisdictions.
- **Universal Accountability:** Applies strictly to all business dealings with both government entities and commercial associates, including vendors, partners and consultants.

#### Conflict of Interest (COI) Policy

- **Risk Mitigation & Governance:** Establishes a board-approved framework for identifying and managing COI in compliance with the Main Market Listing Requirements (MMLR).
- **Disclosure Compliance:** Mandates annual and ad-hoc integrity pledges for all personnel.

#### Gifts, Hospitality and Related Benefits Policy

- **Ethical Engagement Standards:** Establishes rigorous boundaries for providing or accepting gifts and hospitality to ensure all business interactions remain transparent and free from undue influence.
- **Political Neutrality & Oversight:** Prohibits unauthorised political contributions through a Board-reviewed framework, with zero political donations recorded in 2025.

#### Whistleblowing Policy

- **Confidential Reporting & Protection:** Provides secure internal and external channels for stakeholders to report misconduct, backed by a guarantee of anonymity and protection against retaliation.

### MANAGING CONFLICTS OF INTEREST AT TNB

At TNB, managing conflicts of interest is more than a compliance exercise. These measures are aligned with national laws and global best practices, reflecting our commitment to upholding good governance in all our business activities and operations.

As we power the nation towards a just transition, we prioritise fairness through a structured and transparent approach to managing conflicts of interest across the Board of Directors and all levels of employees, regardless of role, level or seniority.

Our Conflict of Interest Policy applies to the BOD and all employees, requiring every individual to declare any personal, financial, or relational interest that could potentially interfere with their professional duties. This ensures that decisions are made fairly, free from bias and in the best interests of TNB and its stakeholders.

In defining who qualifies as a "relative", we align our policy with the Malaysian Anti-Corruption Commission (MACC) Act 2009. It includes not only immediate family members such as spouses, parents, children and siblings, but also extended relations such as in-laws, uncles, aunts and cousins. This clear and comprehensive definition ensures there is no ambiguity when addressing potential conflicts, especially those involving family ties.

We categorise conflicts of interest into three key areas where such situations are most likely to arise:

1 Actual Conflict of Interest

2 Potential Conflict of Interest

3 Perceived Conflict of Interest

All three categories require every employee to declare via TNB's Employee Self Service Portal (ESS), either (1) on an annual basis if they have any conflicts, or (2) when a specific situation involving a conflict arises. Employees must also declare any of these conflicts if they hold a position in any organisation that either competes with or provides goods or services to TNB.

In addition, there are measures in place for key senior management and employees who serve as Directors of TNB subsidiaries. These include ad hoc and annual declarations via ESS or manual disclosure forms, as well as mandatory declarations during meetings, which are recorded in official minutes.

### TNB ANTI-BRIBERY MANAGEMENT SYSTEM (ABMS)

Our integrity strategy is built on the TCIMS framework, with the Anti-Bribery Management System (ABMS) as a central component. To ensure ethical standards remain effective, we conduct annual internal and external audits of ABMS across business operations to evaluate compliance with internal policies and assess the effectiveness of risk controls and mitigation measures in addressing corruption and fraud exposures identified through periodic assessments. In 2025, the ABMS audits covered 100% of TNB and three (3) subsidiaries, progressing to achieve full Group-wide coverage by 2027.

For external assurance, SIRIM conducts surveillance and recertification audits of procurement processes related to electricity supply across the Group. In 2025, two (2) recertification audits were conducted by SIRIM for the Procurement & Supply Chain (P&SC) Division and TNB's subsidiary, Tenaga Cable Industries Sdn. Bhd. (TCI). All entities successfully retained the ISO 37001 ABMS certification by SIRIM. All audit findings are reported to the Integrity Committee (IC) and escalated to the Board Integrity Committee (BIC) for strategic oversight.

To reinforce internal capabilities, we also partnered with SIRIM STS Sdn. Bhd. to provide ISO 37001:2025 Internal Auditor Training to 40 employees across divisions, equipping them to effectively evaluate the ABMS and uphold TNB's integrity standards.

### TNB CODE OF BUSINESS ETHICS (COBE)

TNB Code of Business Ethics (COBE) provides clear guidance on managing conflicts of interest, exchanging business courtesies and using company resources responsibly. It reinforces our commitment to integrity by governing all ethical decision-making. The COBE sets the ethical principles and behaviours expected in our interactions with stakeholders including shareholders, customers, vendors and the communities where we operate. It applies to all TNB Board of Directors and employees.

The COBE is reviewed periodically to ensure compliance with regulatory requirements and relevancy to our business operations. In addition, the COBE strictly prohibits money laundering and terrorism financing, and any suspicious activities are required to be immediately reported to Management and the Board for action.

 [TNB's Code of Business Ethics is publicly accessible at <https://www.tnb.com.my/ethics-governance/tnb-code-of-business-ethics>](https://www.tnb.com.my/ethics-governance/tnb-code-of-business-ethics)

### INTEGRITY PACT FOR VENDORS AND SUPPLIERS

We extend ethical excellence across our value chain by mandating all vendors and suppliers to sign a legally binding Integrity Pact under the Sustainability Procurement Code of Conduct (SPCC). This integrity pact obliges vendors and suppliers to practice ethical procurement, declare compliance with anti-corruption and conflict-of-interest policies, maintain confidentiality and report any misconduct.

 [For more information on the SPCC, refer to Sustainable and Responsible Supply Chain on page 206.](#)

### ENHANCING INTEGRITY CULTURE AT TNB

#### STRENGTHENING ORGANISATIONAL INTEGRITY CULTURE THROUGH HUMAN GOVERNANCE

We further strengthened our integrity culture through the year-round Human Governance Programme series, which focuses on the human element by promoting integrity and accountability as key drivers of values-based leadership. The programme reinforces the belief that effective governance depends not only on robust processes, but also on the consistent demonstration of ethical conduct across the organisation. It further embeds integrity, accountability and responsibility as core expectations alongside existing governance practices and organisational culture. A total of four programmes were conducted during the year.

Leadership engagement and internal communications serve as primary drivers for cascading these values across the company. Mandatory training programmes ensure the consistent application of ethical standards and support a proactive speak-up culture. These capability-building initiatives foster an environment where integrity is embedded in organisational values.

#### EFFICIENT, EFFECTIVE & TRANSPARENT DISCIPLINARY MANAGEMENT

In 2025, the BIC approved the TNB Disciplinary Management Code, an enhancement to the existing procedures designed to institutionalise a culture of integrity through human governance. In the same year, seven (7) confirmed corruption cases involving seven (7) employees were investigated and addressed in accordance with this enhanced Code, resulting in disciplinary actions including dismissal. These actions demonstrate our unwavering commitment to transparency, good governance and ethical standards. In addition, the Management takes proactive actions to identify opportunities for improvement to prevent reoccurrence.

## BUSINESS ETHICS AND CORPORATE GOVERNANCE

### ENHANCE FOCUS ON EDUCATION, ENGAGEMENT & ENFORCEMENT

We implement a Training and Communication Plan (TCP) to embed a robust integrity culture across the organisation. As a key pillar of our anti-corruption strategy, the TCP is planned with initiatives to comply with Section 17A of the MACC Act 2009 and aims to fulfil the 'Training and Communication' component under the T.R.U.S.T. principles.

The TCP utilises findings from the annual Integrity Health Index (IHI) to address performance gaps through targeted initiatives for the Board, management, employees, contractors, suppliers and vendors. Our approach combines tailored ethical training such as seminars and e-learning sessions with broad communication strategies, including integrity bulletins and digital posters. To ensure accountability, the effectiveness of these programmes is reviewed periodically and reported to the BIC.

In 2025, the TCP delivered 21 initiatives with 99.8% participation in anti-corruption training among permanent and contract employees, alongside 1,344 contractors, suppliers and vendors, reflecting our proactive commitment to ethical behaviour.



Tailored ethical training is conducted to address performance gaps identified by the annual Integrity Health Index assessment. This targeted approach strengthens employees' understanding of ethical expectations and supports continuous enhancement of the Group's integrity culture.



Anti-corruption training was held for both permanent and contract employees to uphold integrity and professional conduct across the Group. The training strengthened awareness of ethical standards and reinforced a culture of transparency and accountability.

## BUSINESS ETHICS AND CORPORATE GOVERNANCE

Through a collaboration with the Malaysian Anti-Corruption Academy (MACA), the TNB Integrity Department also conducted the Chief Integrity Officer (CeIO) Programme to strengthen ethical leadership. This programme equips leaders with the understanding of anti-corruption laws and best practices, while empowering them to foster transparency. As at 2025, a total of 51 employees from middle and top management across TNB and its subsidiaries have completed the certification.

In addition, we also developed the e-Learning module on 'Sexual Harassment in the Workplace', with full implementation across the Group, as participation is mandatory for all employees. This e-learning module on sexual harassment in the workplace aims to educate employees on what constitutes sexual harassment and the procedures in place should they experience or report such incidents.

#### CONTINUOUS MONITORING OF INTEGRITY PERFORMANCE

We conduct a comprehensive IHI annually to assess our integrity infrastructure, corporate culture and ethical conduct, learning and development, as well as communication mechanism, enabling us to identify and address gaps through specific improvement strategies. In 2025, TNB improved its IHI score to 92.44%, reflecting a holistic integrity culture that serves as a guiding principle for decision-making, fostering accountability and strengthening trust across all levels of the organisation.

#### RISK MANAGEMENT

In a highly regulated and essential service industry, integrity risks including corruption and fraud potentially affect operational continuity and stakeholder trust. Managing these risks safeguards our financial stability and business sustainability.

#### RISK IDENTIFICATION AND ASSESSMENT

To create a shared integrity culture in TNB, we maintain a proactive risk management approach to identify risk exposures and quantify impact in relation to corruption, fraud and ethical breaches. This includes conducting regular risk assessments across all business entities and ensuring prompt actions are taken accordingly, such as the deployment of effective mitigation strategies to strengthen our control environment.

#### STRUCTURED POLICIES, PROCEDURES AND GUIDELINES ON TAX MANAGEMENT

We have established structured policies, procedures and guidelines to oversee tax compliance, planning and risk management through our Group Financial Policies and Procedures ensuring uniformity and accountability. The Chief Financial Officer oversees these activities and the Board Audit Committee reviews key tax initiatives, including the Tax Corporate Governance Framework, Base Erosion Profit Shifting and e-invoice implementation. All significant transactions or decisions are approved by the BOD.

The Group also monitors developments relating to the Economic Co-operation and Development (OECD) Global Minimum Tax (Pillar Two) and evaluates its potential impact on the Group's tax position to ensure timely compliance with applicable regulations.

We value our relationship with tax authorities and actively engage in constructive dialogue to support the development of effective tax systems and legislation. We are committed to transparency and cooperation with tax authorities, including the Inland Revenue Board of Malaysia and the Royal Malaysian Customs Department, during tax audits and information requests.

Identify  
Areas for  
Improvement

Promptly  
Address  
Discrepancies

Enhance  
Ethical  
Performance

Transparency  
and  
Accountability



## BUSINESS ETHICS AND CORPORATE GOVERNANCE

The TNB Risk Information System (TRIS) centralises our oversight, tracking potential root causes related to fraud and bribery risk across all business entities in the Group. The TRIS performs the following:

<b>Risk Identification and Assessment</b>	▶ All business entities conduct risk assessments, update their respective fraud and bribery risk registers in the TRIS and identify root causes related to the risk. In 2025, a total of 685 business ethics-related causes were identified in operational processes across TNB. Specific and targeted mitigation controls were put in place to address the root causes.
<b>Annual Review</b>	▶ The mitigation controls are reviewed annually by all business entities and updated in TRIS to ensure their relevance and effectiveness.
<b>Strategic Monitoring</b>	▶ The Integrity Department monitors centralised data from TRIS to provide the Board and management with real-time visibility of the Group's risk profile.

In addition, the TNB Integrity Department collaborated with the Malaysian Anti-Corruption Commission (MACC) to conduct a Fraud & Bribery Risk Management Awareness Session for Integrity Coordinators and Risk Managers across the organisation. The session aimed to provide a comprehensive understanding of new requirements under ISO 37001:2025 Anti-Bribery Management System and enhance understanding of Fraud and Bribery Risk Assessment.

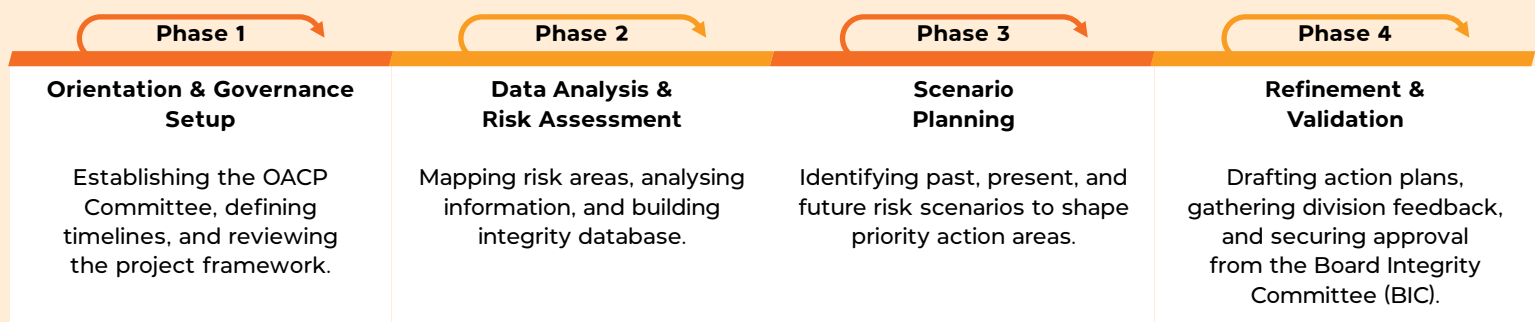
### CORRUPTION RISK ASSESSMENT AND MITIGATION

#### ORGANISATIONAL ANTI-CORRUPTION PLAN (OACP)

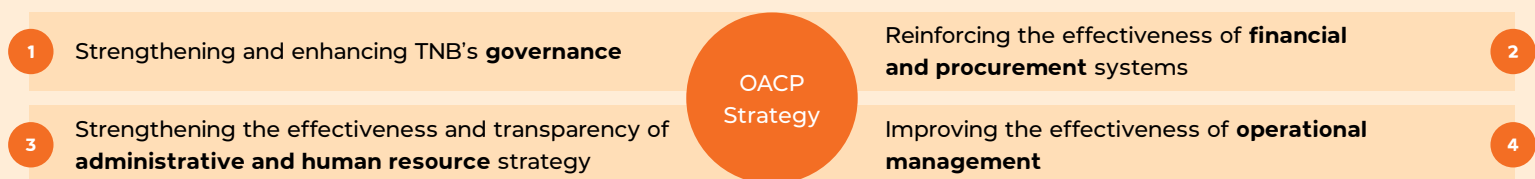
The National Anti-Corruption Plan ("NACP"), launched on 29 January 2019, aims to position Malaysia as a nation recognised for integrity. In support of this, Prime Minister's Directive No. 1/2018, Series 2 No. 01/2019, issued on 29 March 2019, mandates organisations to develop an Organisational Anti-Corruption Plan ("OACP") under the NACP 2019-2023.

In line with this directive, with the Institute of Integrity Malaysia ("IIM"), we developed our OACP as a key governance document to guide anti-corruption initiatives, address governance gaps, prevent corruption and strengthen integrity across the organisation, led by the TNB Integrity Department in collaboration with all Divisions and Departments.

The OACP has been implemented across 100% of our Divisions and Departments. This enables us to systematically identify governance gaps, corruption risks and improvement opportunities, while strengthening our governance and integrity framework through targeted control enhancements. The implementation is carried out through four (4) technical phases:



The process resulted in the identification of four key areas required to strengthen controls, namely Governance, Finance and Procurement, Administration and Human Resources and Operations. These priorities are supported with four strategies and 18 objectives, which reinforced control mechanisms, improved enforcement, elevated professional conduct and enhanced transparency across all functions.



## BUSINESS ETHICS AND CORPORATE GOVERNANCE

Following a comprehensive assessment, we identified 65 initiatives to strengthen our control environment and prioritised 42 high-impact initiatives to address integrity gaps.

At the operational level, the business entities carry out their respective initiatives based on the business ethics risk exposures and the OACP Strategy, improving access controls and reinforcing internal audit coverage across high-risk operational areas.

In addition, Group-wide initiatives such as staff training, third-party risk management, strengthened document-handling practices, enhanced security screening and the adoption of digital verification tools, further reduce fraud vulnerabilities and promote a strong culture of integrity.

Furthermore, we have established four monitoring and evaluation mechanisms to ensure that allegations and concerns are attended promptly and resolved systematically with clear escalation paths, governance checkpoints and board-level oversight.



#### Integrity Department Oversight

Coordinates implementation, ensuring each division executes its action plans within the timeline.



#### ABMS Internal Audit

Verifies compliance with the ABMS standards, ensuring every initiative meets required controls.



#### Standardised OACP Implementation Reports

Divisions prepare structured progress reports for review by the BIC.



#### TNB Risk Information System (TRIS)

Ensures each division updates risk registers and related mitigation actions to prevent recurrence.

### FOCUSED INTEGRITY MITIGATION FOR IDENTIFIED HOT JOBS

Our enhanced approach to business ethics and integrity risk management is more than a compliance exercise, as it is a strategic commitment to ensure responsible and transparent governance. The risk identification process extends beyond systems and business entities to include identification and monitoring of specific high-risk roles known as 'Hot Jobs'. These positions are defined as roles with an inherent vulnerability to ethical and bribery risk due to their involvement in procurement, contract management, financial approvals, human resources or negotiations with external parties.

Comprehensive risk mapping has identified 4,757 of employees occupying the identified 'Hot Jobs', across TNB Company. Additional interventions are provided, in stages, to these employees focusing on the 3E elements (Educate, Engage, Enforce).

### OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>ANTI CORRUPTION</b>								
<b>Percentage of Employees That Have Received Training on Ethics and Anti-Corruption by Employee Category</b>								
Bursa C1(a) [Anti Corruption]	<b>Total</b>	%	<b>74.48</b>	<b>100.00</b>	<b>99.78</b>	<b>100</b>	-	
	Senior Management	%	1.01	1.26	1.29	-	-	
GRI 205-2	Executive	%	17.39	27.16	27.85	-	-	
	Non-executive	%	56.09	71.58	70.64	-	-	
Bursa C1(b) [Anti Corruption]	Total number of operations assessed for risks related to corruption	Number	32	118	36	-	-	
GRI 205-1	Total percentage of operations assessed for risks related to corruption	%	97.00	100.00	97.00	100	-	36 out of 37 entities had registered their fraud and bribery risks.

## BUSINESS ETHICS AND CORPORATE GOVERNANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>ANTI CORRUPTION</b>								
<b>Confirmed Incidents of Corruption and Actions Taken</b>								
Bursa C1(c) [Anti Corruption]	Total number of confirmed incidents of corruption	Number	5	4	7	-	-	
GRI 205-3								
GRI 205-3	Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	Number	5	4	7	-	-	
<b>Total Number and Percentage of Employees that the Organization's Anti-Corruption Policies and Procedures Have Been Communicated to, Broken Down by Employee Level</b>								
GRI 205-2	<b>Completed Conflict of Interest (COI)</b>							
	Senior Management	Number	362	437	448	-	-	
	Executive	Number	6,720	9,357	9,671	-	-	
	Non-executive	Number	20,856	24,661	24,606	-	-	
	Total	Number	27,938	34,455	34,725	-	-	
	Total	%	80.90	100.00	99.40	-	-	
	<b>Completed Integrity Pledge</b>							
	Senior Management	Number	350	437	448	-	-	
	Executive	Number	6,569	9,357	9,668	-	-	
	Non-executive	Number	20,711	24,661	24,820	-	-	
	Total	Number	27,630	34,455	34,936	-	-	
	Total	%	80.00	100.00	99.40	-	-	
<b>Total Number of Employees that have Received Training on Ethics and Anti-Corruption by Employee Category</b>								
GRI 205-2	<b>Total</b>	<b>Number</b>	<b>27,540</b>	<b>34,654</b>	<b>34,900</b>	-	-	
	Senior Management	Number	348	437	452	-	-	
	Executive	Number	6,470	9,412	9,740	-	-	
	Non-executive	Number	20,722	24,805	24,708	-	-	
<b>Total Number of Accused Employees by Level</b>								
-	Senior Management	Number	0	0	0	-	-	
	Executive	Number	0	0	0	-	-	
	Non-executive	Number	5	4	7	-	-	
<b>Anti-Bribery Management System (ABMS) Internal Audit</b>								
-	Number of division audited	Number	21	24	19	-	-	
	Percentage of division audited	%	100	100	100	-	-	
	Number of NCR	Number	7	12	13	-	-	
<b>Amount of Political Contribution</b>								
GRI 415-1	Total amount of political contribution	RM	0	0	0	-	-	
<b>Total Number of Significant Instances of Non-Compliance with Laws and Regulations for which Fines Were Occurred</b>								
GRI 2-27	Environment	Number	10	4	0	-	-	
	Safety and occupational health	Number	41	25	16	-	-	
	Corruption	Number	-	-	0	-	-	
	Total	Number	51	29	16	-	-	
<b>Total Number of Significant Instances of Non-Compliance with Laws and Regulations for which Non-Monetary Sanctions Occurred</b>								
GRI 2-27	Environment	Number	7	16	19	-	-	
	Safety and occupational health	Number	41	27	29	-	-	
	Corruption	Number	-	-	0	-	-	
	Total	Number	48	43	48	-	-	
<b>Monetary Value of Significant Fines</b>								
GRI 2-27	Cost of fines, penalties or settlements in relation to corruption	RM	-	-	0	-	-	
	Monetary value of significant fines related to Health & Safety	RM	0	89,500	115,000	-	-	
	Monetary value of significant fines related to Environment	RM	20,000	8,000	0	-	-	
	Total monetary value of significant fines	RM	20,000	97,500	115,000	-	-	

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

## MT 12 LABOUR RIGHTS AND EMPLOYMENT CULTURE



### WHY IS IT IMPORTANT?

We recognise that a high-performing culture is fundamental to strengthening operational reliability and resilience, advancing innovation and delivering long-term value at TNB. In line with this, we are committed to upholding our employees' rights, well-being and development.

With a diverse workforce of more than 35,000 employees, we cultivate an inclusive, equitable and performance-driven environment that fosters continuous learning and professional growth. Our TNB Labour Rights Policy Statement underpins this approach by safeguarding employee rights and reinforcing a respectful, safe and inclusive workplace.

As we navigate the energy transition, we are proactively equipping our people with targeted training, capability-building and reskilling programmes. These efforts are supported by our TNB Reimagining Culture, which drives the development of a future-ready, skilled and empowered workforce.

### OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);

IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18 (a)(b)

\*Short: 2026; Medium: 2027-2030; Long: 2031-2050

Opportunity and Risk	Opportunity: Upskilling and Reskilling a Future-Ready Workforce for Energy Transition				Risk: Challenges Across Diverse Workforce for Future-Ready Capabilities			
<b>Description</b>	<p>TNB has the opportunity to build a future-ready workforce by upskilling and reskilling over 35,000 employees to meet the demands of Peninsular Malaysia's energy transition. With more than 70 years of industry experience, TNB already has a highly competent workforce, requiring not a rebuild from scratch, but a strategic uplift to develop new capabilities in renewable integration, energy storage, grid modernisation, carbon management, digital operations and AI.</p> <p>To accelerate capability development, TNB has established the TNB Energy Transition Academy (TETA) in collaboration with Universiti Tenaga Nasional (UNITEN) and the National Energy Centre (NEC) serving as a central platform for specialised ET training, certification pathways and industry-relevant curricula. In parallel, ILSAS continues to scale technical and digital competencies through partnerships with global technology providers and ASEAN utilities under the APG initiative, ensuring knowledge transfer from leading industry players.</p> <p>By investing in its people, TNB enhances innovation capacity, improves operational excellence and secures the human capital required to sustain growth through the energy transition.</p>				<p>TNB's strategic ambition to develop a future-ready workforce for the energy transition may be constrained by several workforce capability challenges. The large TNB workforce of over 35,000 employees, spread across multiple regions, business units and job functions, makes standardised training delivery challenging.</p> <p>Diverse educational backgrounds, technical expertise and digital literacy levels require tailored learning approaches, while rapidly evolving technologies in renewable energy, grid modernisation, AI and carbon management make it challenging to keep training content current and relevant.</p> <p>In addition, resistance to change or low motivation among some employees may reduce the effectiveness of reskilling and upskilling programmes. If these challenges are not adequately addressed, it may lead to lower morale and productivity, higher turnover rates and increased operational costs.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens workforce capability across critical transition areas (renewable integration, grid modernisation, carbon management, and digital operations) enhancing long-term operational resilience and execution capacity.</li> <li>Improves productivity, innovation and safety performance by equipping employees with future-ready technical and leadership skills.</li> </ul>				<ul style="list-style-type: none"> <li>Limit innovation and execution of strategic energy transition initiatives.</li> <li>Undermines TNB's ability to deliver reliable, affordable and sustainable energy.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Guides strategic prioritisation of reskilling and digital learning programmes to ensure alignment with evolving energy transition roles and competency requirements.</li> <li>Supports targeted talent planning and succession development to sustain organisational readiness for new technologies and business models.</li> </ul>				<ul style="list-style-type: none"> <li>Evaluate workforce skills and align roles with future needs that meet energy transition goals.</li> <li>Deploy tailored reskilling, digital learning and change-management initiatives to enhance workforce adaptability and readiness.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Investment in structured upskilling programmes enables delivery of strategic initiatives (e.g., RT 2.0) through capability uplift while mitigating long-term turnover and recruitment costs.</li> <li>Strengthens financial resilience by reducing productivity loss associated with skills gaps and enhancing workforce efficiency during the transition.</li> </ul>				<ul style="list-style-type: none"> <li>Higher operating costs including cost of productivity, hiring, re-training and other relevant costs resulting from higher turnover rates.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Cost Savings RM17.4 mil – RM22.7 mil	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	Cost Avoidance RM50 mil – RM450 mil	Cost Increase RM18.7 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

### GOVERNANCE IN ACTION

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

The TNB Board and the TNB Board Nomination and Remuneration Committee (BNRC) oversee the remuneration policy for Non-Executive Directors, Executive Directors and Top Management, positioning it as a key governance mechanism for managing talent-related risks and driving long-term enterprise value. The strategic people-related matters are updated to the TNB Board through monthly BNRC chairman reports.

*The BNRC roles and functions are elaborated in the Corporate Governance section in the IAR 2025.*

At the management level, the Group People Management Committee, chaired by the President/Chief Executive Officer and convening at least monthly, deliberates on strategic people matters that shape the employee experience across the Company. The Committee manages the implementation of remuneration policy, talent management, succession planning, promotions, mobility, career pathways and employee well-being and monitors the effectiveness of its implementation. As employee experience is the core focus, the Committee takes into consideration employees' input through strengthened engagement, with the aim to enhance organisational culture that supports employees' growth and satisfaction in relation to their long-term performance.

At the operational level, the Corporate People Committee, chaired by the Chief People Officer, as well as Divisional People Committee, chaired by respective Chiefs, meets at least once a month to review employee performance, drive employee development programmes and resolve people-related matters.

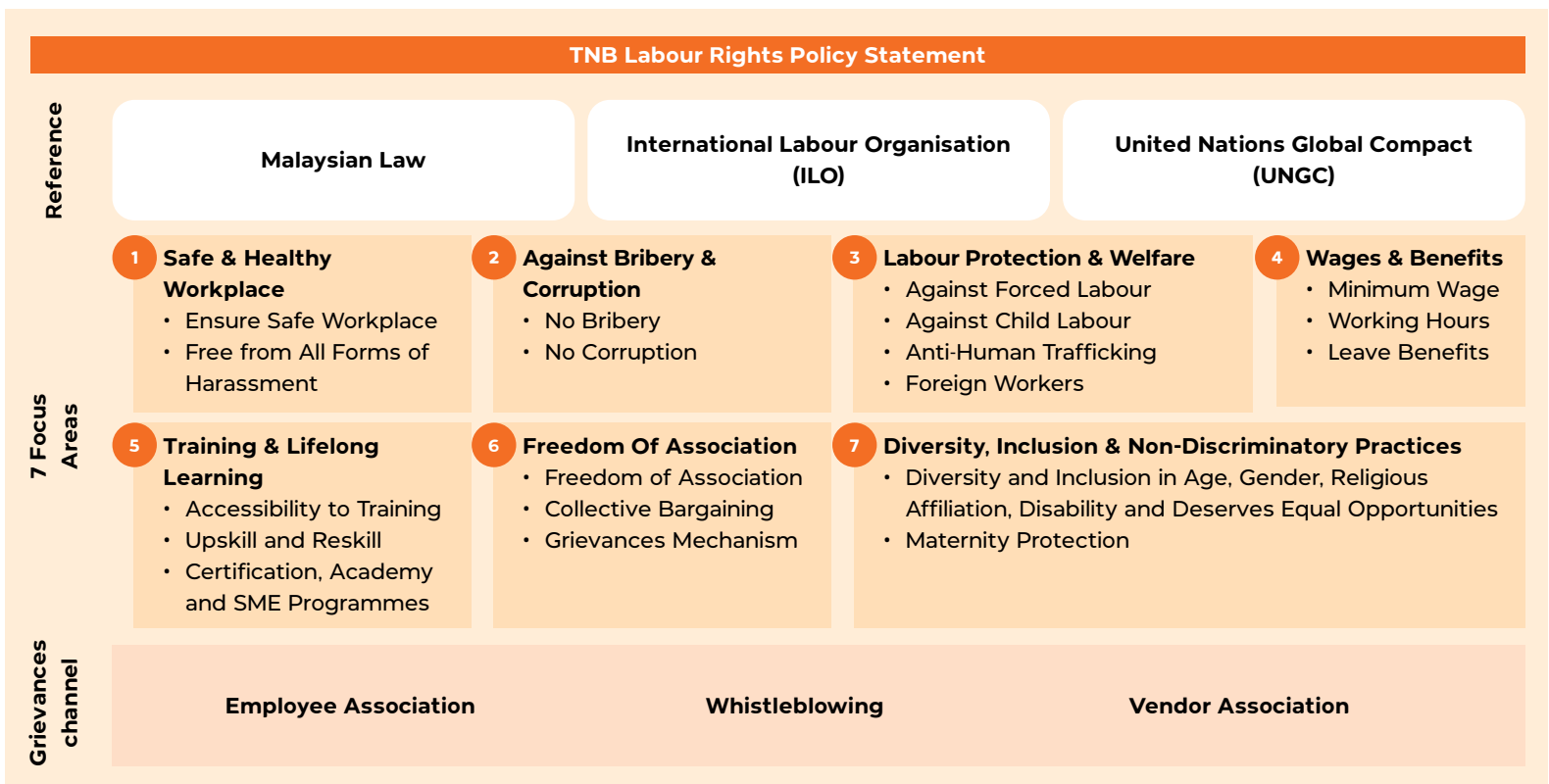
### STRATEGY

IFRS S1.29,30,31,33(a)(b)(c); IFRS S2.14(a)(b)(c)

#### UPHOLDING LABOUR RIGHTS PRACTICES

By adhering to Malaysian laws and guided by international standards from the International Labour Organisation (ILO) and United Nations Global Compact (UNGC), we uphold our TNB Labour Rights Policy Statement, which encompasses seven (7) core elements. The implementation is applied consistently across the organisation and extended to our vendors and their communities. The policy statement is available on both TNB's intranet platform and easily accessible by the public on the corporate website at [https://www.tnb.com.my/assets/files/Labour\\_Rights\\_Policy\\_Statement.pdf](https://www.tnb.com.my/assets/files/Labour_Rights_Policy_Statement.pdf). To ensure all stakeholders fully understand their rights and responsibilities, the policy statement is also translated into the Malay language when necessary.

Our Group People Division (GPD) centrally leads in adopting, producing guidelines and implementing labour rights initiatives in TNB for employees. In the spirit of Just Transition, we continuously encourage our vendors, suppliers and contractors to adopt the same labour rights principles.



## LABOUR RIGHTS AND EMPLOYMENT CULTURE

## Focus Area

<b>Safe &amp; Healthy Workplace</b>	<ul style="list-style-type: none"> <li>• Ensure, so far as is practicable, the provision of a safe and healthy working environment to prevent work-related injuries and occupational diseases among our employees and vendors.</li> <li>• Provide a safe work environment free from discrimination of any kind and from any form of harassment in the workplace by adopting a zero-tolerance policy.</li> </ul>
<b>Against Bribery and Corruption</b>	<ul style="list-style-type: none"> <li>• Commit to conduct our business ethically and in full compliance with all applicable laws and regulations related to prevention of bribery and anti-corruption practices in all our business operations.</li> </ul>
<b>Labour Protection and Welfare</b>	<ul style="list-style-type: none"> <li>• Prohibit any form of human trafficking, slavery, child labour and forced labour.</li> <li>• Ensure that our operations are in accordance with all applicable laws and regulations related to labour protection and welfare rights, including protection for foreign workers.</li> </ul>
<b>Wages and Benefits</b>	<ul style="list-style-type: none"> <li>• Ensure our operations fully comply with applicable working hours, uphold the minimum wage rates and provide paid leave as provided under all applicable laws and regulations.</li> </ul>
<b>Training and Lifelong Learning</b>	<ul style="list-style-type: none"> <li>• Empower our workforce through training and lifelong learning, fostering continuous growth through comprehensive training initiatives.</li> </ul>
<b>Freedom of Association</b>	<ul style="list-style-type: none"> <li>• Uphold the right to freedom of association and collective bargaining, empowering employees to engage in organised activities for mutual support and representation.</li> <li>• Enhance and oversee the grievance mechanism, enabling effective communication and reporting of issues.</li> </ul>
<b>Diversity, Inclusion and Non-Discriminatory Practices</b>	<ul style="list-style-type: none"> <li>• Promote diversity and inclusion across age, gender, religious affiliation and different ability, ensuring equal opportunities for all.</li> <li>• Provide protection against unfair dismissal, including any unfair dismissal of female employees during pregnancy.</li> </ul>

## STRENGTHENING TNB DIVERSITY, EQUITY AND INCLUSION (DEI) PRACTICES

At TNB, DEI are business imperatives that strengthen our ability to serve over 10 million customers, accelerate the nation's sustainable growth and deliver on our RT 2.0 strategy. Fostering a safe, equitable, diverse and inclusive workforce is essential to drive organisational transformation in our energy transition journey.

Group People Division oversees the implementation and progress of DEI initiatives across TNB, including monitoring the delivery of DEI training and related programmes, ensuring that initiatives meet organisational objectives and standards. Progress updates are presented to the People Management Committee (PMC) monthly and to the Group People Management Committee regularly.

We are committed to building DEI capabilities through training and programmes for our employees, with a focus on human rights, workplace harassment prevention and disability inclusion, including autism awareness. In 2025, 601 employees participated in a webinar on human rights in the business context conducted by Human Rights Commission of Malaysia (SUHAKAM).

Our initiatives are focused on building a Great Company, Great Job and Great Leaders through five (5) strategic DEI priority areas.

## GENDER DEI

At TNB, career advancement is based on merit, performance and leadership capability. Across the Group, women are increasingly represented in board, senior management and executive roles, highlighting a growing talent pool for future leadership.

As of 31 December 2025, women comprise 33% of TNB's Board of Directors, exceeding our target of 30%. At the senior management level, women currently represent 27.47% across the Group, with us progressing towards our 30% target by 2026.

Overall, we continue to maintain steady progress in fostering gender diversity, equity and inclusion throughout the organisation.

## EQUITABLE ACCESS TO LEARNING &amp; DEVELOPMENT

Our learning programmes are inclusive, fostering a multi-generational workforce equipped with future-ready skills, knowledge transfer and innovation. TNB's 3Es Learning & Development intervention (Education, Exposure and Experience) provides aspiring women leaders with mentoring, networking, international assignments, executive education and certification opportunities. Initiatives include the Women Leaders Forum (WLF), TNB Women in Energy Network (TWiEN) and PELITAWANIS, all of which champion equal opportunities for women, foster inclusivity and support professional growth, collaboration and leadership development in line with our ESG commitments.

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

### FAIR WAGES

We ensure all employees (permanent, contract and temporary) are compensated fairly and competitively, with pay regularly benchmarked against the market. Equal remuneration is provided to men and women based on job worth, grade and performance, without regard to gender, ethnicity or other characteristics. Through ongoing monitoring and auditing, we uphold equitable, transparent and socially responsible employment practices, safeguarding the financial well-being and dignity of our workforce.

### PROTECTION AGAINST DISCRIMINATION AND HARASSMENT

TNB Labour Rights Policy Statement outlines our commitment to protecting our people against unfair dismissal and harassment. We provide a whistleblowing channel that enables our employees, contractors and members of the public to report instances of unethical, unlawful or inappropriate conduct on a confidential basis, without any fear of intimidation or reprisal.

An independent investigation team investigates all reported concerns and, where applicable, provides feedback on the outcome of the investigation. The Board Integrity Committee serves an oversight role to ensure consistent and effective implementation of the reporting mechanism through regular monitoring and evaluation.

### FOSTERING AN INCLUSIVE CULTURE: WHERE EVERYONE BELONGS

True to our core value of "Care" (Prihatin), we define inclusion by how our employees feel. We are committed to cultivating an environment where everyone can thrive and contribute to their fullest potential. This includes embedding non-discriminatory practices in our recruitment to strive for a diverse workforce, with an increase in female new hires to 28% in 2025, up from 24% in 2024.

Since 2024, we have expanded our Pilgrimage Leave to include all employees, regardless of race or religion and enhanced medical coverage for spouses of female employees, marking an important milestone in our DEI journey. We also continue to recognise and celebrate the dedication of long-serving employees through the Long Service Award programme, reflecting our appreciation for their loyalty, passion and commitment to growing with us.

Throughout our People Experience journey, we bring our people together through a range of engagement initiatives, events and festive celebrations that foster inclusivity and a sense of belonging. These initiatives connect thousands of employees across the country, from different levels, genders and backgrounds, through events such as TNB Sports Day, TNB Family Day and TNB Run, as well as festive and cultural engagements including Hari Raya Aidilfitri, Chinese New Year and Deepavali celebrations, Ihya' Ramadan, Quran Recitation Competition, among others.

### ZERO TOLERANCE TOWARDS FORCED LABOUR AND CHILD LABOUR

We uphold a zero-tolerance stance against forced labour and child labour across our operations. We enforce strict age verification processes in all recruitment activities to ensure full compliance with the minimum legal working age in the countries where we operate. As of the reporting period, there were zero reported grievances related to forced labour and child labour among TNB employees.

In addition, we respect and protect our employees' rights and freedom to participate in workers' unions. Employees across executive, non-executive of technical and non-technical roles are represented by recognised unions, reinforcing our commitment to fair labour practices and the prevention of forced labour.

The recognised unions include:

- 1 **Persatuan Eksekutif TNB (PET)**
- 2 **Kesatuan Percantuman Pekerja-Pekerja TNB (KPPPTNB)**
- 3 **Kesatuan Pegawai Perkhidmatan Sokongan TNB (KPPSTNB)**
- 4 **Persatuan Pegawai-Pegawai Eksekutif TNB (EOA)**
- 5 **Persatuan Unit Keselamatan TNB (PERUNIKA)**

## STRENGTHENING LEADERSHIP, INCLUSION AND COMMUNITY THROUGH WOMEN-LED INITIATIVES

### TENAGA WOMEN IN ENERGY NETWORK (TWIEN)

Tenaga Women in Energy Network (TWiEN) is an internal network that supports the development, engagement and visibility of women across our organisation and the energy sector. In 2025, a range of engagement and development programmes were organised to provide insights into leadership expectations, sustainability considerations and the evolving role of women in the energy sector.

A key highlight during the year was TWiEN Day, a flagship engagement event attended by more than 300 participants and focused on enhancing leadership confidence among women. The network also rolled out its inaugural mentoring programme to support structured career development and knowledge transfer.

Looking ahead, TWiEN will continue to strengthen the leadership pipeline for women within TNB by expanding mentoring initiatives, increasing cross-level engagement and aligning its efforts with our ESG and Human Capital strategies.



*TWiEN programmes cultivate an inclusive workplace that accelerates the advancement of women into leadership roles, strengthening the pipeline of future female leaders in TNB.*

## TOWARDS LIVING WAGES

The Malaysian Government is advancing the living wage agenda by raising the national minimum wage and encouraging Government-Linked Companies to adopt a living wage benchmark that is higher than the statutory minimum. This initiative promotes fair and sustainable income levels to support workers' well-being and economic resilience.

We are committed to fair and competitive salary by providing all employees, including contract and temporary workers, the statutory minimum wage of RM1,700 per month in line with Malaysia's Minimum Wages Order 2024. Subsequently TNB has formally affirmed its commitment to the Malaysian government to implement a minimum living wage of RM3,100.00, outlining a clear plan and timeline to achieve the living wages progressively by the end of December 2027. The commitment reflects both our people values and long-term organisational priorities. Aligned with the national direction, we are progressively strengthening employee remuneration framework, implementing phased measures to achieve a living wage for our employees.

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

### SUPPORTING EMPLOYEE WELL-BEING THROUGH BENEFITS

We continue to provide a range of employment benefits to support all our employees as we believe in going beyond the basics to create a supportive and thriving work environment. A well-taken-care-of TNB family boosts morale and productivity and significantly reduces turnover rates. Our commitment is to regularly review and enhance our policies to support our employees in every possible way.

We provide a comprehensive range of employee benefits and leave entitlements in compliance with the Employment Act 1955, supporting the diverse personal, family and professional needs of our workforce. These benefits aim to promote employee well-being, work-life balance and foster an inclusive workplace environment. Employees holding office in unions are also entitled to trade union leave to attend union-related matters.

These benefits are designed to promote employee well-being, workforce stability and long-term business sustainability. Regular monitoring and auditing mechanisms are also in place to ensure consistent compliance across all levels of our operations and promote fair, transparent and socially responsible employment practices. All employees, including non-executives, are eligible for performance-based pay, such as bonuses, reflecting their performance and contributions.

**Various Leave Entitlements At TNB**

- Special leave (Covers death of family members, marriage, paternity and disasters such as fire, flood and landslides)
- Half-pay leave (For executives with family members requiring medical care)
- Leave for participating in games or sports and cultural activities
- Leave on trade union business
- Sick leave
- Study leave
- Injury leave
- Annual leave
- Leave without pay
- Maternity leave
- Reserve forces leave
- Outstation transfer leave
- Pilgrimage leave
- Quarantine leave

### PERFORMANCE-BASED REMUNERATION

We have established an integrated and continuous performance management framework that directly links performance planning, monitoring and evaluation to our business priorities and sustainability objectives. Performance-based pay is extended to all our employees, including non-executives and complements the contractual bonus provisions under the Collective Agreement, reinforcing our commitment to a performance-driven and inclusive rewards framework. Individual KPIs are aligned with our business targets and performance outcomes are systematically reviewed to determine performance-based rewards, reinforcing a strong culture of accountability and performance excellence. This end-to-end process incorporates ESG-related KPI metrics including carbon emissions intensity reduction, renewable energy capacity and employee capability building to ensure that remuneration outcomes are tied to both financial and sustainability performance.

In addition, we offer a Long-Term Incentive Plan (LTIP) to all our employees subject to performance appraisal. In 2025, more than 90% of our employees were eligible to exercise the LTIP, demonstrating our commitment to rewarding sustained performance and fostering a high-performing, future-focused workforce.

LABOUR RIGHTS AND EMPLOYMENT CULTURE

TNB ANNUAL LONG SERVICE AWARD

In 2025, 1,122 of our employees received the Long Service Award in recognition of 20, 25, 30, 35 and 40 years of dedicated service to TNB. The Long Service Award is an annual event that celebrates the commitment, loyalty and contributions of our employees, honouring those who have played a vital role in our growth and continued success.



Our 2025 Long Service Award celebrated employees' long-standing dedication and contributions in driving organisational excellence, reinforcing a culture of appreciation, commitment and shared purpose across TNB.

EMPLOYEE COMMUNICATION AND ENGAGEMENT

At TNB, we value employee feedback to continuously improve employee experience. We conduct direct engagement sessions such as top management quarterly top management engagement sessions. In addition, we continuously provide corporate updates through bulletins and news channels to our employees. An annual survey is continuously being conducted to identify area of improvement and best practices requested by employees to be continued as part of TNB culture.

<p><b>Intranet Subpages</b></p>	<p><b>Corporate Bulletins</b></p>	<p><b>Info TV</b></p>	<p><b>Social Media</b></p>	<p><b>Turun Padang</b></p>
<p>Accessible internal pages for updates and resources</p>	<p>Tenagawan: regular updates and news</p>	<p>Informative broadcasts in common areas</p>	<p>Engaging interactions and timely updates through TNB Powerfaces on Facebook</p>	<p>An outreach initiative by the management of TNB to engage directly with employees</p>

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

### TURUN PADANG

*Turun Padang* is an employee outreach session led by TNB's management to strengthen communication and foster closer engagement between management and employees across the organisation. Among the outreach sessions held under *Turun Padang* were *Santai & Sampai Bersama* DCEO and *Ziarah Muhibbah*, which further strengthened workplace connectivity, encouraged open engagement and reinforced relationships between management and employees.

These sessions were conducted across states, divisions and subsidiaries and were open to the entire TNB workforce. To ensure wider participation and accessibility, engagements were carried out through both physical sessions and digital platforms such as Webex, particularly for remote areas or locations with logistical constraints.

Throughout 2025, a total of 13 outreach sessions were conducted across Peninsular Malaysia.



The *Turun Padang* sessions enabled TNB management to listen closely to the people and meet their needs, as issues are raised and resolved on the ground where feasible.

Following the above engagements and survey, continuous improvement has been implemented in the areas of office infrastructure, safety tools and equipment, uniforms, employee benefits and employee career development pathways and training. These improvements strengthen employee well-being, workplace readiness and professional development while supporting a more conducive, safe and progressive working environment throughout TNB.

### EMPLOYEE GRIEVANCE MECHANISM

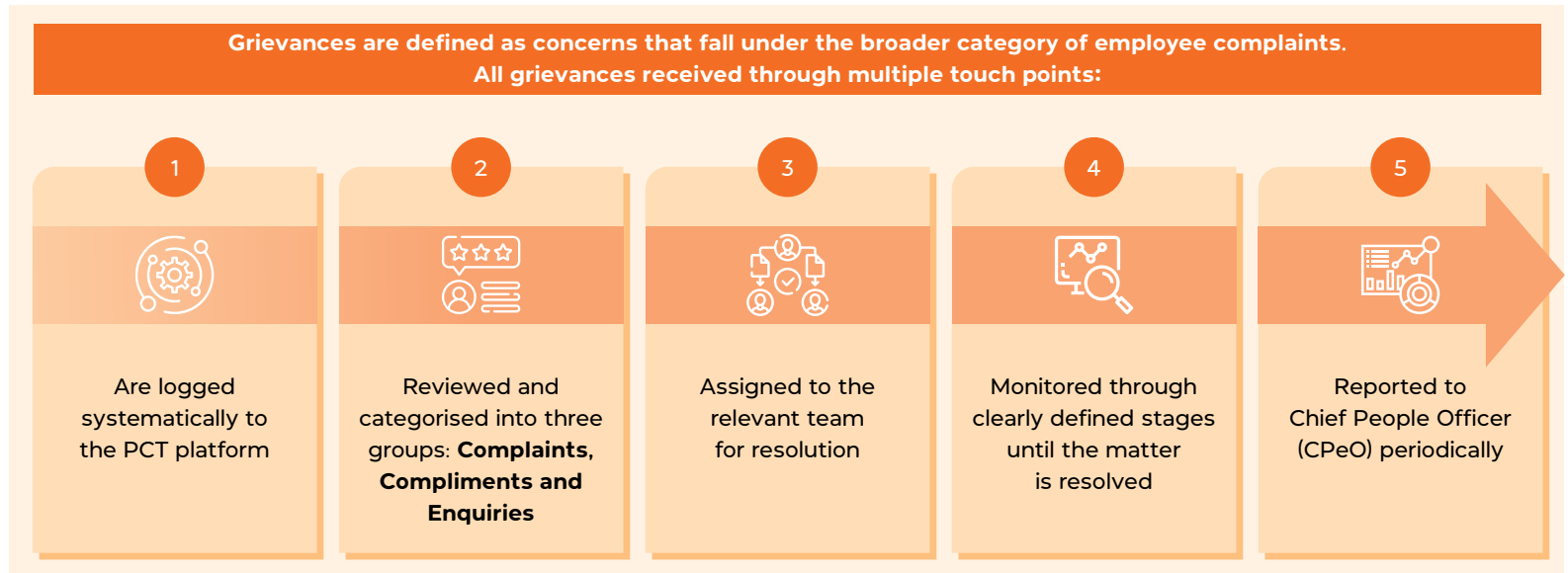
At TNB, we provide grievance mechanisms through various channels for our stakeholders including customers, employees, vendors and contractors. The grievance mechanisms are handled by independent committees ensuring confidentiality, protection against retaliation and fair handling of all reported cases.

 For Whistleblowing Information System (WBIS), refer to the Topic: Whistleblowing Procedure, IAR 2025 page 285; For Vendor Grievances, refer to Topic: Sustainable and Responsible Supply Chain.

For our employees, we provide multiple internal avenues to raise concerns, including the Employee Grievance Form, the Whistleblowing platform and the People Control Tower (PCT). These avenues are designed to be accessible, confidential and fair, ensuring that our employees can speak up without fear of retaliation.

LABOUR RIGHTS AND EMPLOYMENT CULTURE

The PCT, established in 2024, is an integrated approach that addresses all concerns and improves employee experience as it captures, tracks and resolves employee feedback collected from multiple touchpoints.



Through the PCT initiative, we have broadcasted live streaming of key engagement sessions, including Top Management Townhall sessions via FB Live sessions, Santai & Sampai engagement sessions and other interactive forums, enabling employees to be part of the events, physically and virtually.



In 2025, four FB Live sessions held in March, June, September and December provided consistent platforms for leadership updates and employee interaction, improving transparency across the organisation.



Our Santai & Sampai sessions with the CEO offer a relaxed and open platform for direct engagement between employees and leadership, promoting a culture of trust and approachability.

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

Under the Collective Agreement, the Employee Grievance mechanism enables employees to submit formal concerns in writing using the prescribed Employee Grievance Form, which is accessible through the intranet and included in the Collective Agreement booklet. Submitted grievances are documented, reviewed and addressed by the Industrial Relations/Employee Relations (IRER) team in the Group People Division (GPD), with TNB's Chief People Officer kept informed at each stage, ensuring a transparent and structured process.

In addition, employees can share feedback or concerns through the Joint Consultative Council (JCC), a dialogue platform that brings together the Business Leadership Team, led by the respective Chief or Head of Division and Union Representatives. All matters raised are carefully recorded, tracked and resolved, ensuring transparency and accountability. Regular JCC sessions across business units also provide an open forum to strengthen collaboration, build trust and promote continuous improvement in the workplace.

Complementing this, the Whistleblowing platform provides an additional secure and confidential avenue for reporting concerns or suspected misconduct. Through this channel, 42 recognised grievances were recorded in 2023, 22 in 2024 and 23 in 2025. All cases are reviewed by the *Jawatankuasa Penilaian Aduan & Penentuan Kes* (JPPK), comprising TNB's Chief People Officer, Chief Internal Audit Officer and the Head of Group Legal, while the TNB Board Integrity Committee (BIC) serves an oversight role, ensuring the consistent and effective implementation of reporting mechanisms through regular monitoring and evaluation.

Employee Grievance Channel	FY2023	FY2024	FY2025
Employee Grievance Form	0	0	5
People Control Tower (PCT)	Not Applicable	17	17
Whistleblowing Platform	42	22	23
Total	42	39	45

The majority of grievances received were promptly reviewed and addressed, with most cases resolved within the established timelines. A significant proportion of the concerns raised related to the Safe & Healthy Workplace category, highlighting workplace safety, well-being and working conditions as key focus areas for our employees.

We remain committed to taking proactive and responsive measures to address such concerns through continuous engagement with our employees, supported by regular monitoring and improvement initiatives. These efforts have enabled us to resolve issues in a timely manner, prevent recurring cases and strengthen trust, in line with our commitment to providing a safe, respectful and healthy environment for our people.

Going forward, we will enhance our grievance mechanism frameworks to align with internal policies and our Labour Rights Policy Statement. The PCT platform will be recognised as an official grievance channel to strengthen transparency, ensure consistency in grievance handling and build greater trust in the process, in line with global standards for employee rights and ESG accountability.

### AGILE CORPORATE STRUCTURE AS ENABLER FOR ENERGY TRANSITION

Within our RT 2.0 strategy, we identify corporate structure as a critical enabler in achieving our Energy Transition target and Net Zero aspiration by 2050. In 2025, we refined our leadership and corporate structure as part of our continued commitment to strong governance, effective business delivery, sustained performance and long-term company resilience in an increasingly complex energy landscape.

This reflects our disciplined approach to governance and succession planning, ensuring we remain future-ready, well-led and supported by a strong pipeline of leadership talent to deliver our national responsibilities sustainably.

### SUCCESSION MANAGEMENT IN TNB

We continuously assess and ensure that effective succession management for all employees is diligently planned, implemented and reviewed. This ensures our business continuity and enhances our business competitiveness. In addition, succession management places strong emphasis on top management positions and other critical positions across TNB. In 2025, we enhanced our succession management framework, creating a more robust system that identified a larger pool of successors and ensured that 94% of the 17 identified critical positions have "ready now" successors. The framework process features nomination, selection assessment, appointment and structured development of successors for critical positions across TNB.

LABOUR RIGHTS AND EMPLOYMENT CULTURE

LEADERSHIP DEVELOPMENT PROGRAMME

As we advance our transformation under Reimagining Tenaga (RT) 2.0 and the Energy Transition agenda, we are committed to developing leaders who demonstrate strategic clarity, navigate complexity and lead effectively at an enterprise level.

In 2025, this commitment was formalised through the Accelerated Leadership Program Series (ALPS), establishing a structured and integrated leadership development ecosystem. Serving as our core platform to develop leaders across all levels, from Supervisors to General Managers, ALPS enables employees to grow through a progressive, role-based pathway aligned with strategic priorities and globally benchmarked leadership competencies.

During the year, we achieved strong scale and participation through ALPS, with 750 leaders developed across the programme, reflecting our comprehensive effort to strengthen leadership capability at all organisational levels. This comprised:



Through ALPS, we empower our leaders through shared experiences, collaboration and real-world learning that build team cohesion and connection, developing 750 leaders across the programme.

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

### BUILDING ENERGY TRANSITION CAPABILITIES

As the driver of energy transition (ET), the capabilities of our employees are critical. The shift towards a low-carbon, decentralised and digital energy system represents not only a technology change, but also a transformation in people, processes and governance. Without the right capabilities, ET ambitions cannot be executed effectively or sustained over the long term.

We value employee growth and are committed to investing in education to ensure our people acquire the essential skills needed for their current and future roles. To support this commitment, we provide employees across the Group with opportunities to pursue further academic studies and continuously enhance their skills and knowledge.

In 2025, we invested RM203.9 million and delivered 1,988,642 training hours to build ET competencies across our workforce. This translates to an average of 57.56 training hours per employee, underscoring the breadth and depth of learning opportunities across the organisation. Since the implementation of our ET capability initiatives, 4,348 executives have been reskilled and upskilled with ET-related competencies. We also recorded a Training Effectiveness Index score of 89%, indicating strong learning outcomes and measurable behavioural impact.

### ET-RELATED MASTER'S AND PHD PROGRAMMES

We continue to strengthen our internal capabilities in support of the energy transition through postgraduate development programmes at Universiti Tenaga Nasional (UNITEN). We currently sponsor 20 of our employees, who enrolled in January 2024, to pursue two ET-related Master's programmes - the Master of Engineering (by Research) and the Master of Energy Management (by Coursework) - on a part-time basis. As they progress through their academic and research components, the programmes enhance their technical expertise and analytical capabilities in key areas of energy transition, equipping them with deeper insights to contribute to our sustainability initiatives and operational transformation.

In parallel, the ET-related PhD programme, which commenced in October 2023 as a three-year research-based initiative, continues to progress steadily. The programme focuses on advancing specialised research in emerging energy technologies, with participating employees undertaking research that contributes to knowledge development and innovation within the energy sector. Through these efforts, we aim to strengthen our internal research capabilities while supporting the development of solutions relevant to the evolving energy landscape.

Our current PhD research initiatives at UNITEN focus on strategic areas, including Home Modular Energy Storage with Smart Management System, as well as the Optimal Planning and Scheduling of Energy Storage Systems towards High Penetration of Renewable Energy and Electric Vehicles in Distribution Systems. A total of 10 employees are actively involved in these research projects, generating technical insights that are expected to support future advancements in energy storage integration, renewable energy adoption and grid optimisation.

We have also developed global capabilities through international exposure. Three (3) of our employees have successfully completed the two-year Global Energy Technology Policy Professionals Program (GETPPP) at Hanyang University, South Korea, graduating in February 2026. This full-time master's programme, which commenced in March 2024 under the Ministry of Trade, Industry and Energy (MOTIE) of South Korea, equipped them with valuable exposure to global best practices, emerging energy policies and innovative technologies, strengthening our capabilities in navigating the evolving global energy landscape.

Collectively, these postgraduate programmes form part of our broader effort to cultivate deep technical expertise and research capabilities within the organisation. By strengthening internal knowledge and innovation capacity, these initiatives support our long-term ambition to drive sustainable energy solutions and remain at the forefront of the energy transition.



10 TNB-sponsored PhD students during an academic visit to the Malaysian Nuclear Agency as part of their research in advancing energy storage, distribution systems and smart energy management.



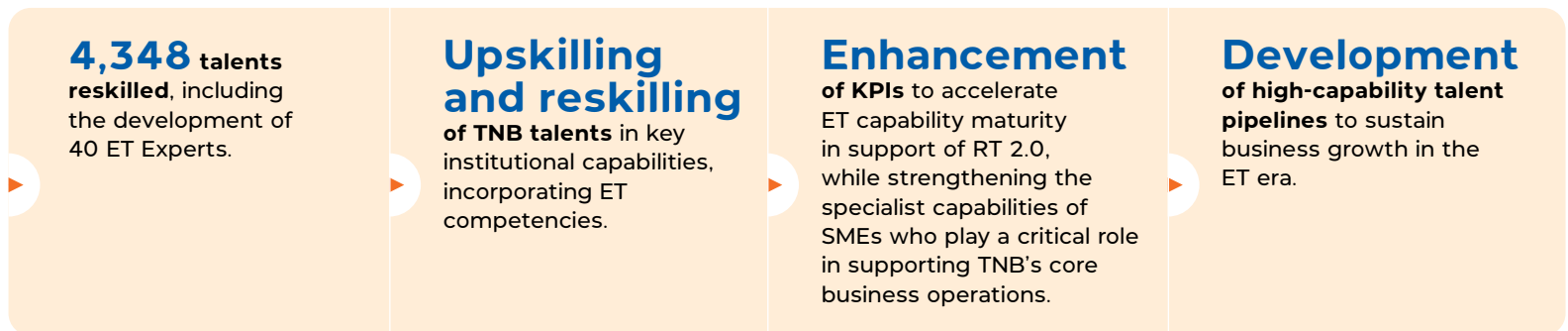
Visit to Sultan Ibrahim Power Plant (SIPP) provides insights into large-scale power generation while enhancing technical knowledge and building energy transition capabilities in TNB.

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

## ACCELERATE ET COMPETENCY THROUGH ILSAS

TNB's corporate academy, Integrated Learning Solution Sdn. Bhd. (ILSAS), has been a cornerstone for developing human capital tailored for TNB and vendors to meet the evolving needs of TNB and the broader electricity supply industry for over 46 years. With the impending energy transition (ET), the integration of new green technologies has become imperative for TNB and industry sustainability and that of the industry as a whole. In response to this, ILSAS has expanded its focus to encompass ET-related skill sets and technologies, including battery electric vehicles (BEV), battery storage, and on-grid floating solar PV.

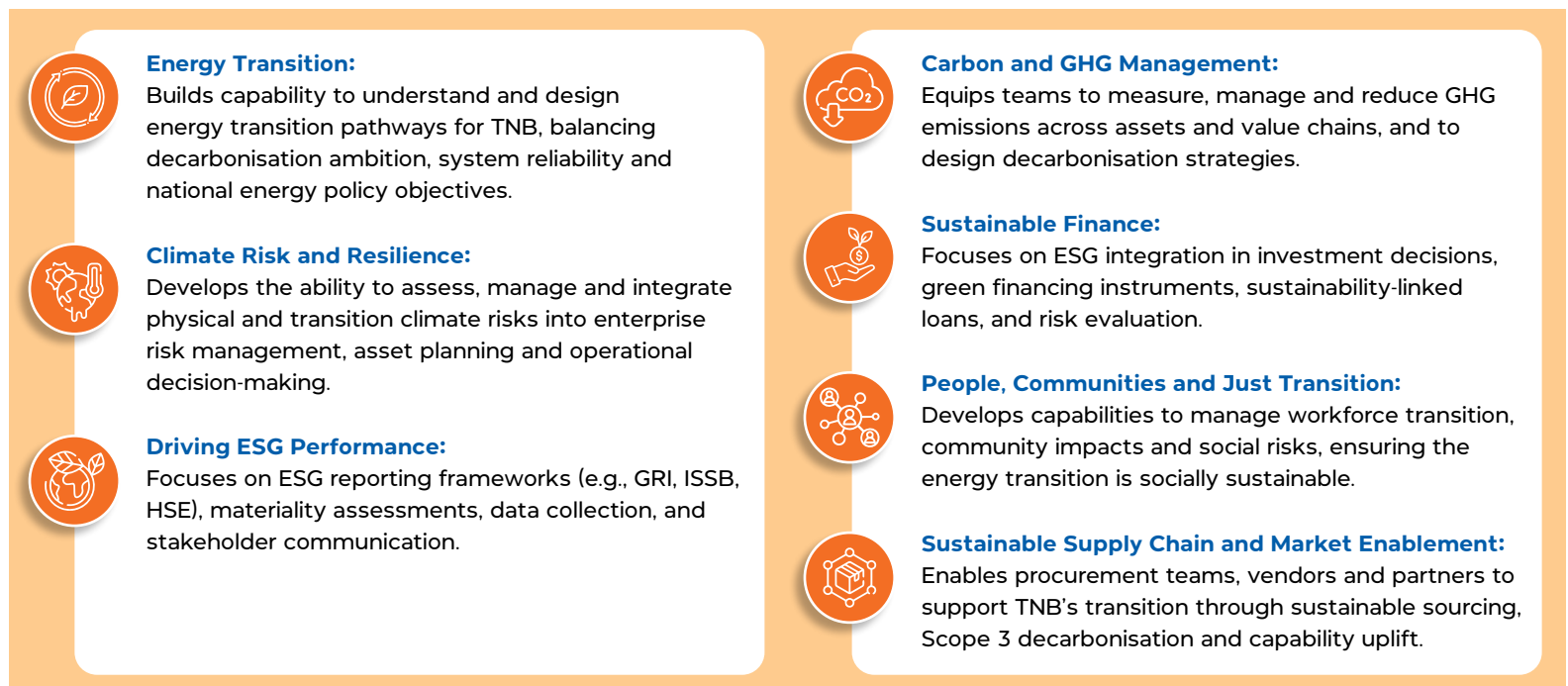
In 2025, ILSAS intensified its focus on ET-related capability development, delivering measurable outcomes aligned with TNB's strategic priorities:



These initiatives also addressed identified gaps within the 'Foundation' persona as benchmarked against the ET Capability Framework targets.

## ESTABLISHMENT OF THE TNB ENERGY TRANSITION AND SUSTAINABILITY ACADEMY (ETSA)

Established by ILSAS, the TNB Energy Transition and Sustainability Academy (ETSA) is a strategic cornerstone to institutionalise capabilities in Energy Transition, Sustainability and Climate Risk Management across the Group. Through ETSA, we are strengthening our workforce capability at scale, enabling energy transition through infrastructure, institutional readiness and sector-wide upskilling. The ETSA capability framework comprises seven core capability pillars, as follows:



Since May 2025, ILSAS has undertaken structured engagements to translate this strategic intent into an implementable framework. This includes the definition of ETSA's core disciplines, institutional model and delivery mechanisms, as well as alignment with the Group People Division and Sustainability Division on scope, governance and expected outcomes.

As a strategic workforce enabler, ETSA will deliver role-based, future-focused learning pathways across Grid, Distribution, Generation, Projects and Corporate Functions, aligned to evolving operational needs and emerging technologies. A standardised learning framework will ensure consistent capability development while addressing critical skills gaps. Through this initiative, we are building a future-ready and resilient workforce, accelerating the execution of our ET agenda and supporting Malaysia's transition towards a low-carbon future.

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

### PARTNERSHIP OF ILSAS WITH UNIVERSITIES TO DEVELOP TRAINING PROGRAMMES FOR TNB EMPLOYEES

ILSAS functions as our training arm that nurtures an inclusive environment that appreciates diverse perspectives and experiences. ILSAS collaborates/partners with universities to provide training for TNB employees to continuously enhance employees' skills and capabilities, preparing them for future challenges and career growth.

#### Strategic Partners for ET Capability Development



#### UNITEN

##### Completed in 2025:

- Professional Executive Development Programme (PEDP) in Engineering Technology (20 people) & Management (20 people)

#### UTM

##### Completed in 2025:

- Hydrogen 101 (23 people)
- Hydrogen Gas Turbine Technology (25 people)
- Bioenergy (21 people)
- Ammonia Production (20 people)

#### UTeM

##### Ongoing:

- The collaboration commenced in 2026 for the Diploma-Equivalent Education Programme (46 participants)

During the year, ILSAS strengthened its training capabilities and accreditation through strategic partnerships with key regulatory bodies, as outlined below:

Regulatory Bodies	ILSAS Roles	Date of Commencement
Suruhanjaya Tenaga (ST) Energy Commission of Malaysia	Recognised as a Registered Training Institution (RTI) under The Energy Efficiency and Conservation Act 2024 (EECA 2024)	30 June 2025
Energy Commission of Sabah (ECoS)	Accredited to deliver eight (8) electrical competency training programmes in Sabah, which covers key competencies including electrical operation, overhead lines, substation management and cable jointing (1kV-33kV)	1 July 2025
Department of Occupational Safety and Health (JKKP)	Accredited as a Steam Boiler Engineer Training Provider (Grade 1 and Grade 2) under the Occupational Safety and Health (Amendment) Act 2022	21 July 2025
Malaysia Green Technology and Climate Change Corporation (MGTC)	Recognised as a strategic training partner delivering key mandatory Continuous Development Programme (CDP) for our employees, including DEAEMS (Data Energy Analysis and Energy Management System) and CPMV (Certified Professional in Measurement and Verification), in compliance with the Energy Efficiency and Conservation Act 2024 (EECA 2024)	12 November 2025



Among the training programmes provided by ILSAS was the Grid-Connected Photovoltaic Systems Training for Wireman and Chargeman, aimed at strengthening technical competencies and supporting workforce readiness for the growing renewable energy sector.

## LABOUR RIGHTS AND EMPLOYMENT CULTURE



ILSAS has achieved accreditation by the Department of Occupational Safety and Health (JKKP) as Steam Boiler Engineer Training Provider (Grade 1 & Grade 2), strengthening industry-ready technical competencies to support safer, more efficient industrial operations.

## RISK MANAGEMENT

IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c)

We have adopted a company-wide risk management framework to evaluate how workforce capability, leadership readiness and talent availability affect our organisational performance. As part of this process, we conduct structured assessments of talent readiness to evaluate potential impacts of the energy transition on our workforce and determine the controls needed to enhance business resilience.

To mitigate the risk of skill mismatch as we accelerate our energy transition strategy, we conduct annual workforce gap analyses and implement targeted reskilling and academic-industry partnerships. These measures are supported by deliberate investments in human capital and organisational restructuring, ensuring workforce readiness, business continuity and a just transition where no one is left behind.

Our capability development programmes at ILSAS are effectively implemented to build a future-ready workforce that can adapt to technological changes and sustainability needs. Additionally, we identify high-potential employees and provide them with mentoring and job-rotation opportunities to build a strong and sustainable leadership pipeline.

We aim to balance higher training and transformation costs with long-term gains in retention, innovation and productivity, cultivating a diverse, agile and empowered workforce that anchors Malaysia's low-carbon future.

## OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>EMPLOYEE DEMOGRAPHIC</b>								
<b>Total Size of Workforce</b>								
GRI 2-7	TNB Group	Number	34,543	34,939	35,476	-	-	
	TNB Company	Number	26,607	26,570	26,883	-	-	
	Genco (Subsidiaries)	Number	1,256	1,646	1,839	-	-	
	Other Subsidiaries	Number	6,680	6,723	6,754	-	-	
<b>Workforce by Gender</b>								
Bursa C3(a) [Diversity]	Male	Number	27,084	27,353	27,688	-	-	
		%	78.40	78.30	78.05	-	-	
GRI 2-7	Female	Number	7,459	7,586	7,788	-	-	
		%	21.60	21.70	21.95	-	-	
<b>EMPLOYEE DIVERSITY AND EQUAL OPPORTUNITIES</b>								
<b>Workforce by Level and Gender</b>								
Bursa C3(a) [Diversity]	<b>Senior Management</b>							
	Male	Number	336	339	367	-	-	
GRI 405-1	Female	Number	120	112	139	-	-	
	Total	Number	456	451	506	-	-	
	Male	%	73.68	75.17	72.53	-	-	
	Female	%	26.32	24.83	27.47	-	-	

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>EMPLOYEE DIVERSITY AND EQUAL OPPORTUNITIES</b>								
<b>Workforce by Level and Gender</b>								
Bursa C3(a) [Diversity]	<b>Executive</b>							
	Male	Number	5,362	5,508	5,688	-	-	
GRI 405-1	Female	Number	3,685	3,866	4,029	-	-	
	Total	Number	9,047	9,374	9,717	-	-	
	Male	%	59.27	58.76	58.54	-	-	
	Female	%	40.73	41.24	41.46	-	-	
<b>Non-Executive</b>								
	Male	Number	21,379	21,506	21,633	-	-	
	Female	Number	3,661	3,608	3,620	-	-	
	Total	Number	25,040	25,114	25,253	-	-	
	Male	%	85.38	85.63	85.67	-	-	
	Female	%	14.62	14.37	14.33	-	-	
<b>Workforce by Age Group</b>								
Bursa C3(a) [Diversity]	<35	Number	11,238	10,493	10,106	-	-	
		%	32.53	30.00	28.49	-	-	
GRI 405-1	35 - 50	Number	19,065	20,248	21,080	-	-	
		%	55.19	58.00	59.42	-	-	
	>50	Number	4,240	4,198	4,290	-	-	
		%	12.28	12.00	12.09	-	-	
<b>Workforce by Level and Age Group</b>								
Bursa C3(a) [Diversity]	<b>Senior Management</b>							
	<35	Number	0	0	5	-	-	
GRI 405-1	35 - 50	Number	235	218	243	-	-	
	>50	Number	221	233	258	-	-	
	Total	Number	456	451	506	-	-	
	<35	%	0.00	0.00	0.99	-	-	
	35 - 50	%	51.50	48.30	48.02	-	-	
	>50	%	48.50	51.70	50.99	-	-	
<b>Executive</b>								
	<35	Number	3,114	3,137	3,287	-	-	
	35 - 50	Number	5,150	5,400	5,520	-	-	
	>50	Number	783	837	910	-	-	
	Total	Number	9,074	9,374	9,717	-	-	
	<35	%	34.40	33.50	33.83	-	-	
	35 - 50	%	56.90	57.60	56.81	-	-	
	>50	%	8.70	8.90	9.36	-	-	
<b>Non-Executive</b>								
	<35	Number	8,128	7,356	6,814	-	-	
	35 - 50	Number	13,679	14,630	15,317	-	-	
	>50	Number	3,233	3,128	3,122	-	-	
	Total	Number	25,040	25,114	25,253	-	-	
	<35	%	32.50	29.30	26.98	-	-	
	35 - 50	%	54.60	58.20	60.66	-	-	
	>50	%	12.90	12.50	12.66	-	-	
	Total (excluding Board Members)	Number	34,543	34,939	35,476	-	-	
<b>TNB Company Board Directors by Gender</b>								
Bursa C3(b) [Diversity]	Male	Number	6	8	8	-	-	
	Female	Number	5	4	4	-	-	
GRI 405-1	Total	Number	11	12	12	-	-	
	Male	%	55.45	66.67	66.67	-	-	
	Female	%	45.45	33.33	33.33	>30 female	-	
<b>TNB Company Board Directors by Age</b>								
Bursa C3(b) [Diversity]	<50	Number	1	1	2	-	-	
	50 - 60	Number	5	5	5	-	-	
	>60	Number	5	6	5	-	-	
GRI 405-1	<50	%	9.09	8.33	16.67	-	-	
	50 - 60	%	45.45	41.67	41.67	-	-	
	>60	%	45.45	50.00	41.67	-	-	

## LABOUR RIGHTS AND EMPLOYMENT CULTURE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>EMPLOYEE DIVERSITY AND EQUAL OPPORTUNITIES</b>								
<b>Differently Abled Employees by Gender</b>								
GRI 405-1	Male	Number	23	26	26	-	-	
	Female	Number	3	5	6	-	-	
	Total	Number	26	31	32	-	-	
<b>Employee Engagement Survey</b>								
N/A	Employee Engagement Score (ESS)	%	89.0	89.7	87.0	-	-	
<b>Processes to Remediate Negative Impact</b>								
GRI 2-25	Total number of grievances against labour practices filed in the year	Number	5	9	22	-	-	This report is based on the number of cases filed in Industrial Court by ex-employees following termination/dismissal due to domestic inquiry
	Total number of grievances against labour practices resolved in the year	Number	1	1	2	-	-	
Bursa C6(d) [Labour Practices and Standard]	Number of substantiated complaints concerning human rights violations	Number	0	0	0	-	-	
GRI 2-25	<b>Training in Human Rights Policies or Procedures</b>							
GRI 410	Security personnel trained in human rights policies or procedures	Number	45	251	334	-	-	
<b>CAPABILITY BUILDING</b>								
<b>Training Hours</b>								
GRI 404-1	Total training hours	Hours	1,344,621	1,346,477	1,988,642	-	-	
Bursa C6(a) [Labour Practices and Standard]	Average training hours per employee	Hours	46.80	50.47	57.56	-	-	
<b>Total Training Hours by Level</b>								
Bursa C6(a) [Labour Practices and Standard]	Senior Management	Hours	15,469	15,884	35,556	-	-	
	Executive	Hours	421,416	416,946	605,553	-	-	
	Non-Executive	Hours	907,736	825,924	1,336,065	-	-	
GRI 404-1	<b>Capability Building Investments for Employees</b>							
N/A	Total investment	RM million	189.58	197.00	203.87	-	-	
<b>EMPLOYEE DEMOGRAPHIC BY CONTRACT TYPE</b>								
Bursa C6(b) [Labour Practices and Standards]	Total (Permanent)	Number	31,063	31,729	33,468	-	-	
	Total (Contract)	Number	3,477	3,210	2,008	-	-	
	Total (Contract)	%	10.07	9.19	5.66	-	-	
GRI 2-7	<b>NEW EMPLOYEE HIRES AND TURNOVER</b>							
<b>Employee Turnover by Level</b>								
Bursa C6(c) [Labour Practices and Standards]	Senior Management	Number	44	40	48	-	-	
	Executives	Number	342	327	424	-	-	
	Non-Executives	Number	756	701	637	-	-	
GRI 401-1	Total number of employee turnover	Number	1,142	1,068	1,109	-	-	
<b>Employee Turnover Rate by Level</b>								
N/A	Senior Management	%	3.85	3.74	4.33	-	-	
	Executives	%	29.95	30.62	38.23	-	-	
	Non-Executives	%	66.20	65.64	57.44	-	-	
	Annual Employee Turnover rate	%	3.30	3.06	3.13	-	-	
<b>LABOUR RIGHTS</b>								
Bursa C6(d) [Labour Practices and Standards]	Number of substantiated complaints	Number	0	0	0	-	-	
GRI 2-25								

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

## MT 13 COMMUNITY DEVELOPMENT AND SOCIAL IMPACT



### WHY IS IT IMPORTANT?

In advancing Malaysia's Energy Transition, our dedication to a just and inclusive transition remains focused on ensuring no one is left behind. This is reflected in our investment of RM232.3 million in community development initiatives, well above the allocation of TNB's 1% of Profit After Tax towards generating positive social impact. Covering education, economic & social, environment, sports and nation-building, our programmes contribute to a thriving and resilient community through creating positive social impact.

With a long-standing role in powering national development and community progress, we continue to support communities, workers and vulnerable groups in navigating challenges and seizing opportunities arising from the transition to a low-carbon economy. This includes building resilience and promoting inclusivity, as well as shared prosperity.

We will continue to stay true to our "Better World. Brighter Lives" tagline by effectively engaging with our diverse stakeholder groups to maximise the value and social impact of our community development programmes.

### OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18(a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Drive Community Energy Access and Social Empowerment				Risk: Corporate Social Responsibility Programmes May Deliver Suboptimal Social Impact for Beneficiaries			
<b>Description</b>	<p>As Malaysia's national power utility, TNB has the opportunity to play a transformative role in driving community energy access and social empowerment, fully aligned with the Malaysia MADANI agenda. Beyond traditional corporate social responsibility (CSR), TNB can embed social value creation within its RE and electrification initiatives, ensuring that the energy transition directly benefits the <i>rakyat</i>. TNB allocates 1% of its Profit After Tax (PAT) towards community development in social, education, environmental and sports.</p> <p>By expanding access to affordable and reliable electricity in underserved areas, promoting community-based solar projects, and supporting rural electrification through innovative off-grid solutions, TNB can enable inclusive participation in the low-carbon economy. These efforts reinforce national aspirations for shared prosperity, sustainability, and social justice under the MADANI framework.</p>				<p>TNB plays a pivotal role in advancing electrification in communities and social empowerment, in line with the Malaysia MADANI agenda. By dedicating 1% of PAT to CSR, a range of nationwide programmes are executed to meet the needs of targeted beneficiaries, furthering meaningful development and positive social impact.</p> <p>Notwithstanding, the complexity arising from diverse community needs and numerous CSR opportunities creates a challenge in ensuring programmes are optimally targeted for highest positive social impact. Without clear prioritisation, targeted outreach, and effective beneficiary engagement, the intended outcome from these programmes may not reach communities that need support the most.</p> <p>Programmes that are too broad or low-impact could reduce social value creation, weaken community trust and limit TNB's contribution to national socio-economic development.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens TNB's social mandate and reinforces long-term licence to operate by uplifting underserved communities through improved energy access.</li> <li>Enhances stakeholder trust and national alignment, supporting a resilient business ecosystem anchored in shared prosperity and inclusive growth.</li> </ul>				<ul style="list-style-type: none"> <li>Undermines TNB's social positioning, erodes stakeholder trust and damages its brand image and reputation.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Drives prioritisation of community-centric programmes aligned with Malaysia MADANI and national socio-economic goals.</li> <li>Encourages collaboration with government agencies, NGOs and local partners to maximise outreach, impact efficiency, and programme scalability.</li> </ul>				<ul style="list-style-type: none"> <li>Align CSR programmes with national priorities including the Malaysia MADANI agenda, supported by community needs assessments.</li> <li>Collaborate with government agencies, NGOs, local councils and private-sector partners to maximise programme reach and resource efficiency.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Strengthens long-term reputational capital and social value creation, supporting sustained stakeholder confidence and national development contribution.</li> </ul>				<ul style="list-style-type: none"> <li>Reduced social value may indirectly affect long-term reputation, financial positioning and amount contributed for national socio-economic development.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Spend					Suboptimal Social Impact	Suboptimal Social Impact	Suboptimal Social Impact
	RM232.3 mil	1% PAT	1% PAT	1% PAT	–	3% of CSR spent	2% of CSR spent	1% of CSR spent

COMMUNITY DEVELOPMENT AND SOCIAL IMPACT

GOVERNANCE IN ACTION

The TNB Board and the TNB Board Sustainability and Risk Committee (BSRC) oversee the implementation effectiveness of the TNB Sustainability Framework, including Community Relations and Corporate Social Responsibility (CSR), to achieve strategic objectives and sustainability commitments.

In line with our commitment to allocate at least 1% of Profit After Tax (PAT) to CSR, the funding is channelled into the five (5) strategic pillars: Education, Economic/Social, Sports, Environment and National Agenda. Allocations are managed transparently to ensure responsible use of funds while delivering programmes that generate meaningful impact for the community. The funds allocation complies with the TNB Limit of Authority (LOA) and CSR governance processes to ensure clear oversight and accountability.

At the operational level, TNB Management monitors the implementation of CSR programmes, including the total contribution made to targeted communities and the number of beneficiaries reached.

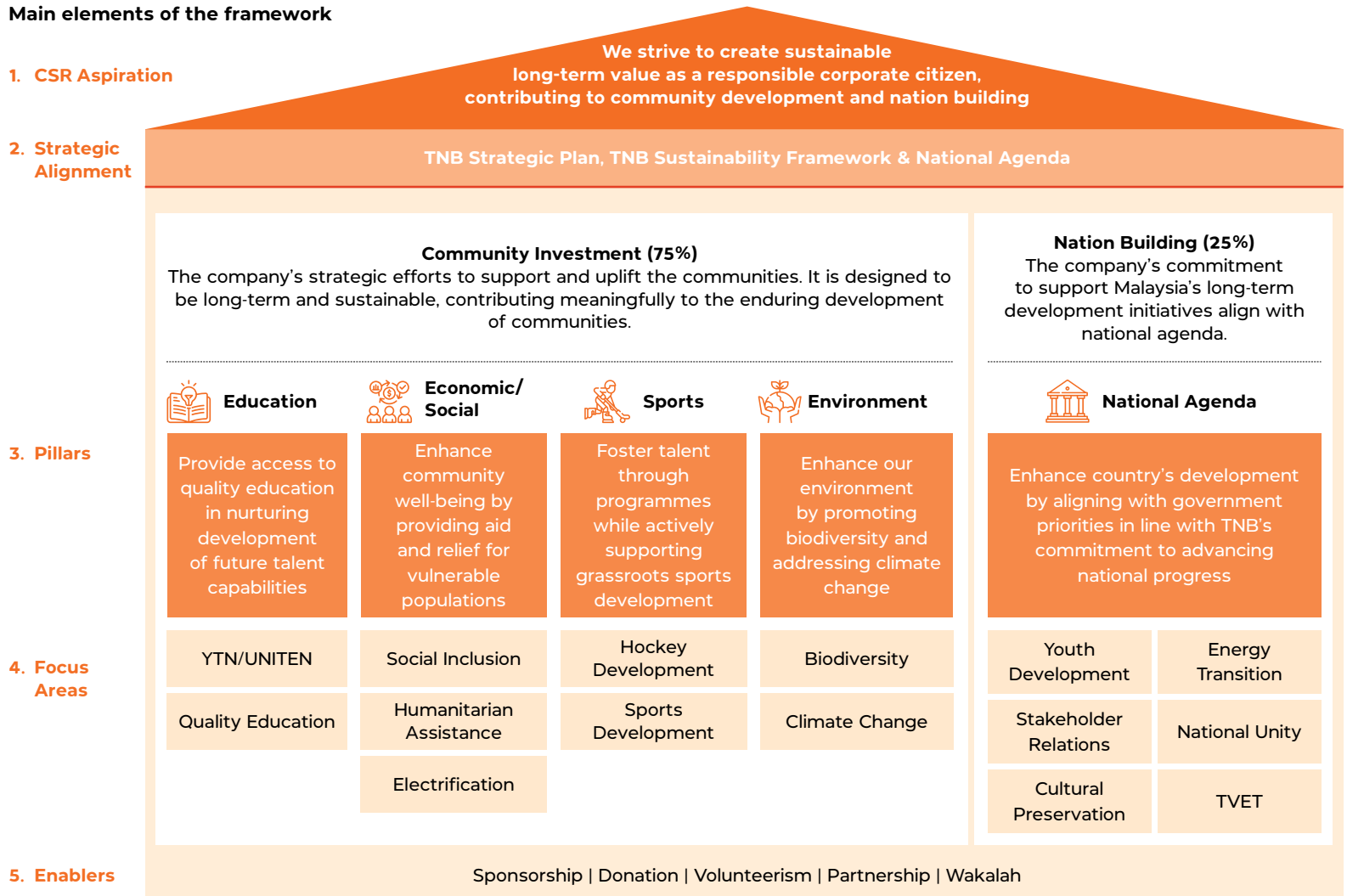
STRATEGY

In 2025, we invested RM232.3 million in our CSR Programme with a focus on community investment and nation-building, thereby exceeding our commitment of at least 1% of PAT allocation towards social development efforts.

In 2026, we introduced the TNB CSR Framework to strengthen and guide our CSR efforts towards delivering greater and more sustainable impact for society and the nation. The framework is anchored on two (2) core CSR areas, namely Community Investment and Nation Building, supported by five (5) strategic pillars: Education, Economic and Social Development, Sports, Environment, and National Agenda.

The framework provides a structured approach to ensure our CSR initiatives are aligned with TNB's Strategic Plan, TNB's Sustainability Framework and National Agenda. Through Community Investment, we focus on uplifting communities, improving socio-economic well-being, promoting sports development, as well as enhancing environmental stewardship. Meanwhile, the Nation Building pillar reflects our role in supporting national priorities, strengthening social resilience, and contributing towards Malaysia's sustainable development agenda.

Main elements of the framework



## COMMUNITY DEVELOPMENT AND SOCIAL IMPACT

### COMMUNITY INVESTMENT

Our community investment covers four (4) areas:



This structure ensures programmes are planned and delivered in a consistent manner, with clear governance and reporting.

### EDUCATION

We aim to transform individuals and their families through the power of education by providing accessible, high-quality learning opportunities and raising awareness of the importance of energy-efficient practices. Our education programmes, particularly those serving underprivileged and rural communities, are instrumental in promoting equitable access to the green economy, preparing both the workforce and society at large for a sustainable energy transition.

#### Yayasan Tenaga Nasional (YTN)

Through Yayasan Tenaga Nasional (YTN), we expand access to higher education for Malaysian youth with outstanding academic performance, regardless of household income, including those from marginalised backgrounds, by easing the financial barriers to tertiary studies locally and abroad. Over the past three (3) decades, YTN has provided educational opportunities to over 20,900 students, with cumulative sponsorships of nearly RM2 billion, helping uplift families and communities through the power of education.

Students receive sponsorships through scholarships and convertible loans for both local and international programmes. YTN's flagship schemes are:

TNB Prime Scholarship	TNB Shine Sponsorship	My Brighter Future (MyBF) Programme
For high academic achievers, regardless of household income, pursuing studies overseas, at UNITEN and at public universities.	Education loan assistance, regardless of household income, for studies at UNITEN, public universities and polytechnics.	Targeted at marginalised and low-income youth pursuing STEM and TVET at selected public universities, polytechnics and community colleges, covering tuition, boarding and living expenses.

▶ In 2025, TNB has spent **RM37.6 million** in Tertiary Education Scholarships, making it the largest single programme under Education and a flagship component of Community Investment.

#### Yayasan Canselor UNITEN (YCU)

Apart from the education sponsorships administered through YTN, we also strengthen education impact through Universiti Tenaga Nasional (UNITEN) via our endowment platform, the Yayasan Canselor UNITEN (YCU). In 2025, YCU continued to mobilise endowment contributions to advance inclusive access and academic excellence at UNITEN, with RM360 million in cumulative endowment since its establishment in 2009. During the year, RM305 million was channelled back to key university priorities such as *dermasiswa* (student bursaries), research grants and teaching and learning initiatives.

To further strengthen student development and participation, YCU also introduced student activity funding packages totalling RM500,000, including a matching mechanism for external sponsorship (up to RM3,000 per activity) to encourage partnership-building and resourcefulness among students.

### Ceria Ke Sekolah Programme (CKS)

Annually, we organise the *Ceria Ke Sekolah* (CKS) programme to ease the financial burden of school preparation for B40 and low-income families. Originally launched as the Back-to-School programme, CKS has evolved into a key education initiative that provides school essentials such as uniforms, shoes and stationery, helping children from underprivileged households begin the school year with dignity and confidence.

In 2025, we contributed close to **RM2 million** through CKS to support **17,450 students** across **154 locations** in rural and urban areas.



The annual CKS programme has eased the financial burden of thousands of students from the B40 and low-income families.

### Malaysia Energy Literacy Program (MELP)

MELP strengthens energy literacy and promotes smart and sustainable living across all levels of society in Malaysia. In 2025, two (2) notable MELP initiatives were implemented, namely a learning series and energy literacy collaborations with third parties.

1. There were 13 learning series initiatives with 34 learning sessions, engaging around 12,800 participants from various ministries and agencies, personnel, students, teachers, associations, public and TNB employees. The topics include tariffs, electrical safety, energy conservation and efficiency, nuclear, electric vehicle and others.
2. Strategic collaborations on various education programmes were established with 28 third parties i.e. nine (9) strategic MELP partners (PETRA, ST, SEDA, YHM, MGTC, MyPOWER, NUR Power, Edra, Malakoff); nine (9) ministries and government agencies (e.g. MoHE, KBS, KESUMA) and eight (8) higher learning institutions (UNITEN, UKM, UniMAP, UTM, UMK, UTHM, UniKL & UUM), offering energy literacy modules and education outreach to students and communities.

A recent survey shows positive behavioural changes in areas like energy efficiency adoption and daily practices, with about 60% of university students and members of the public adopting energy-efficient practices, compared to 74% of school students. In 2025, the Corporate Reputation Survey and other assessments from MELP programmes recorded an 8.94% increase in energy literacy, from 73.36% in 2024 to 82.33%.



MELP has improved energy literacy among Malaysians, raising awareness in areas such as electrical safety, and energy conservation and efficiency.

## COMMUNITY DEVELOPMENT AND SOCIAL IMPACT

### TNB's Sekolah Angkat Programme

As part of our long-term community development strategy, we expanded the Sekolah Angkat (School Adoption) Programme from 36 to 51 schools nationwide in 2025. The expansion resulted in an investment of about RM2.4 million in targeted interventions such as academic support, digital learning, infrastructure upgrades and co-curricular development. The current portfolio comprises:



These sustained efforts reflect TNB's commitment to building a future-ready Malaysia, where progress is driven not only by reliable and sustainable energy, but also by inclusive opportunities that empower communities, nurture the next generation and strengthen the nation's social fabric.



### ECONOMIC & SOCIAL

#### Engaging Local Communities and Indigenous People (Orang Asli)

Recognising the vital role of local communities and Indigenous Peoples, including the Orang Asli, in shaping sustainable and inclusive development, we strive to ensure that our operations and development projects are carried out with respect for local cultures, livelihoods and community well-being. Through ongoing engagement and collaboration, we aim to better understand and address the impacts of our operations on community livelihoods, cultural heritage and overall well-being

#### Managing Indigenous Peoples and Community Relations

As part of our commitment to upholding community relations under the 300 MW Nenggiri Hydroelectric Project, we conducted consultations with local communities and social impact assessments during the project's early stages. These assessments evaluated the potential socio-economic effects and recommended mitigation measures at the initial stages. To ensure continued engagement throughout the project lifecycle, we actively engage with Orang Asli communities living near the project area to improve their well-being and socio-economic conditions, strengthen resilience and cohesion and ensure grievances are addressed in a fair and structured manner.

We have established a community-based grievance mechanism, supported by two (2) designated officers, to collect and document grievances, feedback and suggestions from the local community. All inputs received are systematically reviewed and analysed, where applicable, incorporated into the project's Social Impact Management Plan (SIMP) and Resettlement Action Plan (RAP). These measures are intended to manage project-induced displacement while safeguarding the well-being of affected communities.

With relocation scheduled to commence in July 2026, construction of the resettlement areas is progressing in line with overall project implementation and reservoir impoundment schedules. The resettlement programme directly affects 244 heads of households (KIR), representing more than 1,200 Orang Asli individuals from Pos Pulat, Kampung Kuala Wias and Pos Tohoi in Gua Musang. In response, we are fully funding a resettlement package to support housing, community infrastructure, relocation assistance, compensation and long-term livelihood transition initiatives.

Beyond physical relocation, we are implementing human capital and community development programmes under the RAP focusing on livelihood restoration, skills development, job readiness and financial literacy to strengthen socio-economic resilience and support long-term self-sufficiency among affected communities. Since 2015, we have continued engaging with JAKOA, community representatives, SUHAKAM, state and federal authorities and civil society organisations to uphold the principles of fair compensation, informed consent, cultural sensitivity and inclusive development, while ensuring the rights, well-being and future resilience of impacted Orang Asli communities remain central to the Nenggiri Hydroelectric Project's sustainability commitments.

### Home for the Needy Programme (Baiti Jannati and *Projek Mesra Rakyat*)

Our Home for the Needy programme was introduced as one of the Group's flagship community investment initiatives to support marginalised and B40 families who lack safe and decent housing. Under this programme, we work with State Governments to build or refurbish homes with proper electricity, water and sanitation, focusing mainly on single parents, senior citizens and differently-abled individuals. This enables us to provide critical housing needs and uplift living standards, ensuring that every family has access to a safe and secure home. We have successfully provided 1,122 homes, primarily for the B40 and underprivileged communities, including differently-abled individuals, senior citizens and single parents.

Since 2018, we have successfully provided 813 homes under *Projek Baiti Jannati (PBJ)* of the Better Brighter Home initiative, which were rebuilt, repaired or purchased. Additionally, 119 homes were supported under *Projek Mesra Rakyat (PMR)*, benefitting non-Muslim communities through CSR allocations. These efforts mirror our commitment to supporting housing development for vulnerable families across Malaysia.

In 2025, we continue to refurbish and build new homes for underprivileged families, approximately amounting to **RM8.6 million**.

### Santuni MADANI Programme

In line with the Government's Santuni MADANI initiative, our Top Management has been entrusted with the opportunity to select locations where they can give back to the communities they choose. The focus is on practical support, addressing socio-economic challenges, improving local infrastructure and strengthening community well-being.

In 2025, **15 locations** were selected for ongoing engagement, with each Top Management member selecting one location. During the year, we contributed more than **RM245,000** and will continue our efforts beyond 2025.

### Better Brighter Shelter Programme

TNB's Better Brighter Shelter Programme supports families from low and middle-income groups who need to accompany loved ones receiving treatment at government hospitals. The programme includes:

- **Better Brighter Anjung Kasih YKN-TNB:** Established by Yayasan Kebajikan Negara (YKN) and the Ministry of Women, Family and Community Development, this initiative provides facilities at selected government hospitals nationwide.
- **Better Brighter Dormitory:** In collaboration with the National Heart Institute (IJN) Foundation, this initiative supports families of heart patients undergoing treatment at IJN.

Since 2017, we have channelled over RM6.4 million into upgrading, equipping, maintaining and operating four (4) Better Brighter Shelter facilities at IJN, Hospital Serdang, Hospital Melaka and Hospital Raja Perempuan Zainab II in Kota Bharu. We have also supported upgrades and equipment for Hospital Sultanah Nur Zahirah in Kuala Terengganu. Through this initiative, we provide safe and comfortable temporary accommodation so that families can remain close to patients during critical medical periods without bearing additional financial and emotional strain.

Each year, more than **6,000 families** benefit from these shelters.

By easing the cost of accommodation and providing a safe, reliable place to stay near the hospital, the Better Brighter Shelter Programme directly supports community well-being, reduces hardship for caregivers and helps families focus on recovery. This initiative is reported as part of our CSR and social impact commitments under our sustainability agenda, demonstrating tangible support for public healthcare and vulnerable families nationwide.

## COMMUNITY DEVELOPMENT AND SOCIAL IMPACT

**Sumbangan Kendaraan Terpakai Initiative**

The *Sumbangan Kendaraan Terpakai* initiative refurbishes used TNB operational vehicles into service or funeral vehicles ("van jenazah"), which are then donated to communities to support essential services, especially in rural areas.

- ▶ In 2025, TNB delivered **45** refurbished vehicles, benefitting communities in different locations through this programme.

**SPORTS****Energising Malaysian Hockey Development**

Our hockey development initiatives focus on creating opportunities for young Malaysians, especially students, to access quality coaching and competitive pathways in the sport. Through grassroots impact, we play a pivotal role in advancing hockey development in Malaysia and have helped shape many national players of world-class standards. This includes the TNB Thunderbolts programme, where we nurture high-potential youths aged 13 to 17 to become future stars of the game.

In 2025, coaching programmes such as *Pembangunan Klinik Hoki Remaja Negara* and *Kem Bakat Hoki 2025* were conducted with selected schools and clubs in Penang, Melaka, Pahang and Perak, benefitting approximately 50 teachers and 1,000 students, with TNB employees who are also former national players volunteering as coaches and mentors.

- ▶ In 2025, our total contribution to hockey development amounted to **RM10.2 million**, comprising RM8.2 million in sponsorship to the Malaysian Hockey Confederation (MHC), RM1 million for the TNB Thunderbolts programme and RM0.9 million for *Sumbangan Peralatan Hoki*.

**ENVIRONMENT**

In 2025, our environmental enrichment initiatives encompassed tree planting, river and coastal clean-ups, habitat restoration and firefly conservation as integrated, on-ground climate solutions for local communities. The initiatives were powered by RM3.6 million in environmental CSR funding for the year.

The Firefly Habitat Conservation & Community Empowerment programme in Kampung Kuantan showcased how we translate climate action into tangible benefits for people and nature. The initiative brought together 1,123 participants, strengthened eco-tourism through 12 fibreglass sampans for the local boat association and delivered 100 food aid boxes to underprivileged families. It also removed 349kg of waste from Sungai Selangor and enhanced biodiversity through the planting of 100 *pokok berembang* and the release of 1,000 juvenile *udang galah*.

Building on this model, similar integrated firefly and riverine conservation initiatives are being rolled out in communities such as Kampung Yak Yah in Kemaman, Terengganu, Kampung Sungai Timun in Rembau, Negeri Sembilan and Kampung Dew in Taiping, Perak, with activities tailored to local ecosystems and livelihood needs.

- ▶ In 2025, the My Brighter Green Programme advanced its tree planting efforts with **23,230 trees** planted, expected to sequester approximately 365 tCO<sub>2</sub>e of carbon, while reinforcing natural buffers that safeguard communities from flooding, erosion and extreme heat.

The programme demonstrates how integrated, community-centred initiatives can deliver meaningful social and environmental impact, reinforcing our role as a responsible energy utility and long-term partner to local communities, while directly advancing the UN SDG 13: Climate Action.

## NATION BUILDING

Under RT 2.0, TNB continues to uphold its role as a nation-builder, contributing to national and community growth by nurturing future-ready talent.

### Technical and Vocational Education and Training (TVET) Transformation Programme

We continue to implement the TVET Transformation Programme, a collaborative initiative with the government to strengthen and future-proof the nation's technical and vocational education ecosystem.

Through strategic partnerships with four (4) ministries and four (4) TVET institutions, the TNB TVET Transformation Programme has made strong progress in shaping training module development, trainer development and infrastructure assessment.

The TVET programme delivered measurable impact, improving curriculum quality and infrastructure readiness, as well as upskilling **100** instructors/lecturers and directly benefitting **1,280 students**. These outcomes have strengthened TVET graduates' employability to **95%** and positioned TVET as a key enabler of Malaysia's Energy Transition goals.

### TNB Better Brighter Internship Programme (BBIP)

Launched in 2014 and upgraded in May 2024, TNB's flagship talent-pipeline initiative now welcomes certificate, diploma, degree, master's and PhD students from accredited institutions nationwide, expanding beyond its original UNITEN-only intake. Structured placements match interns with departments and locations aligned to their fields of study, while a blended curriculum combines job shadowing, project work, site visits to power plants and solar farms and mentorship from experienced professionals.

Our internship pathways have engaged almost 33,000 students since 1990, equipping Malaysia's emerging energy professionals with practical skills in renewable generation, smart-grid technology and sustainability leadership.

In 2025, **1,473 students** completed their internship at TNB for an average attachment period of five (5) months.

### TNB Protege-Ready to Work (PROTEGE-RTW) Programme

The TNB PROTEGE-Ready to Work (RTW) Programme supports national efforts to reduce graduate unemployment and build a skilled workforce for Malaysia's growing energy sector.

The programme adopts a hybrid learning model that combines theoretical knowledge with practical application, delivered in partnership with TNB Integrated Learning Solution (ILSAS). It strategically prioritises candidates with engineering, IT and business degrees aligned to our operational needs, placing them across TNB and the wider electricity supply value chain for real-world exposure and skills development.

Since its introduction in 2011, the programme has trained **6,610** graduates, with 546 subsequently absorbed into TNB and its subsidiaries, strengthening both employability outcomes and the Group's talent pipeline. In 2025, **306** proteges have been employed in TNB.

## COMMUNITY DEVELOPMENT AND SOCIAL IMPACT

### PROJECT BASED CSR AND ENGAGEMENT

As outlined in the TNB Sustainability Policy, we are committed to engaging with local communities in or near areas where we operate with the purpose of promoting their well-being and enhancing socio-economic benefits. In addition to the 1% PAT allocation, we also deliver CSR through project-based funding. This budget comes from the overall project budget and is used to address local community needs around project areas, such as improving surrounding communities and supporting initiatives that contribute to TNB's Net Zero aspirations.

In 2025, RM361,000 was invested for the installation of rooftop solar systems at Sekolah Kebangsaan Pulau Redang and Masjid Kampung Baru Pulau Redang, directly benefitting 723 individuals in the local community as part of the CSR programme under the *Pulau Tenaga Hijau* Project. At the school, the solar installation reduces reliance on diesel-based electricity during the day, improves comfort for students and teachers and serves as a practical learning site for sustainability. At the mosque, solar power supports cleaner energy use in an important community space where residents gather daily, showing that low-carbon solutions can fit naturally into everyday island life.

In addition, RM843,000 was invested for the installation of solar PV systems and solar street lighting at Kampung Tekek, Kampung Mukut and Kampung Juara on Pulau Tioman as part of our *Pulau Tenaga Hijau* Project, directly benefitting around 300 people.

#### **Gemersek Pangsun: Harmony of Heritage, Nature & Community**

Once a site that powered early industries, Gemersek Pangsun, Ulu Pangsun is now an eco-retreat that continues to support the local community through employment, sustainability and cultural preservation.



*Gemersek Pangsun stands as a beacon of progress, reflecting the harmonious integration of nature, heritage and community while promoting environmental stewardship, cultural preservation and sustainable local development.*

The former hydropower station carries forward its renewable energy heritage through modern sustainability initiatives. The site converts food waste into organic fertiliser at TNB Research and reuses it across the grounds, reflecting the hydro system's former closed-loop efficiency. It also repurposes timber from the original site for compound fencing, preserves and adapts the former powerhouse and gives new life to furniture and fixtures from TNB Port Dickson's Cahaya Resort. Meanwhile, the rivers that once powered the hydro station now sustain biodiversity and conservation efforts, while low-impact trails and access roads protect the site's natural terrain and heritage landscape.



*The site's renewable energy heritage is integrated with sustainable practices, including circular food waste management, heritage material reclamation and river protection, creating opportunities for local participation, environmental stewardship and long-term community value creation.*

The heritage site also cultivates opportunities for the Orang Asli Suku Temuan community, whose connection to the area was once defined by the hydro station's role in supplying electricity. Members of the Orang Asli community are employed in maintenance, landscaping and guest services, enabling them to transform their deep knowledge of the land into valuable hospitality and tourism-related expertise.

### **The Sungai Perak Hydropower Cascade: Contributing to Communities across the Basin**

Sungai Perak, the longest river in Peninsular Malaysia, has long been a vital natural resource supporting industrial progress and socio-economic development. Along the river are seven (7) hydropower stations: Temengor, Bersia, Kenering, Chenderoh, Upper Piah and Lower Piah stations, with a total installed capacity of 649.1 MW, while the Pergau Hydroelectric Station in Kelantan contributes the remaining capacity.

Beyond powering electricity, the hydro scheme supports local communities, safeguards natural areas and strengthens water security. Its operations, including Sungai Perak, Sungai Piah and Pergau schemes, create hundreds of direct jobs in technical operations, maintenance, engineering, environmental management, while supporting employment in logistics, local contracting and related services.



*The hydropower stations at Sungai Perak have contributed to local development by creating job opportunities in logistics, local contracting and supporting services, while also stimulating economic activities within surrounding communities. These opportunities have helped strengthen local livelihoods, support small businesses and improve socio-economic resilience in the area.*

#### **Flood Modulation and Community Safety**

Guided by the Reservoir Water Management Plan, the hydro stations store water during the monsoon season and manage controlled releases during the dry season to support flood mitigation and river flow management. To strengthen flood risk management and disaster preparedness, Early Warning Systems (EWS) and joint exercises involving agencies and local communities provide timely alerts to both authorities and residents. Daily notifications, alongside real-time water-level monitoring, are also shared with the Department of Irrigation and Drainage (JPS) and the District Disaster Management Committee (JPBD), while evacuation routes for communities downstream of the Temengor Dam are demarcated through flood-inundation maps.

#### **Protecting Biodiversity and Local Livelihoods**

The reservoir areas continue to support biodiversity and habitat connectivity for wildlife, while stable freshwater conditions environments from Temengor and Kenering help sustain native fish species such as *Kelah*, *Tengas* and *Sebarau*. The cascade arrangement which regulates river flow and reduces extreme fluctuations have supported long-term fish survival, as it maintains oxygen levels, temperature profiles and water quality. These conditions have enabled freshwater ecosystems and sustainable conservation and education initiatives such as the Akekchep Kelah Sanctuary at Sungai Tiang and the 'Mini Amazon of Malaysia' at Kampung Beng.

The calm waters surrounding the hydro stations also support cage-fish aquaculture, involving species such as Tilapia, *Kelah* and freshwater prawns, creating additional income streams for local households through the production of fermented fish products, such as *ikan pekasam*. Beyond aquaculture, Temengor and Royal Belum have developed into eco-tourism destinations that support local livelihoods through houseboats, small resorts, guided fishing trips and nature excursions and the sale of handicrafts, cultural products and forest-based goods.

Additionally, the river sustains downstream agriculture across the basin, including paddy cultivation in Seberang Perak as well as vegetable farms, rubber holdings and oil-palm plantations around Gerik.



## MT 14 SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN



### WHY IS IT IMPORTANT?

Building a sustainable and resilient supply chain remains central to how we create long-term value. Beyond ensuring operational efficiency, our procurement practices are designed to embed strong environmental, social and governance (ESG) principles across the entire supply chain ecosystem. Together with our suppliers and business partners, we promote responsible, transparent and ethical practices guided by the principles of a just transition to ensure inclusivity and equitable participation throughout the value chain. In line with our role as the national power utility company, we also continue supporting the Government's MADANI Economy agenda by expanding opportunities for local vendors and suppliers within the energy transition landscape.

To further strengthen this approach, we continue integrating sustainability considerations into every stage of the procurement lifecycle through our TNB Value-Based Procurement Policy and Procedure (TNB VbPPP) framework. This marks a shift away from a purely cost- and transaction-driven model towards a more holistic value-based approach that prioritises long-term value creation, sustainable governance and supply chain resilience. Anchored by strong ethical business practices, our efforts in 2025 focused on advancing environmental stewardship, social responsibility and governance standards throughout our supply chain ecosystem, contributing towards a more inclusive, resilient and sustainable future for Malaysia and beyond.

### OPPORTUNITY AND RISK

IFRS 51.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS 52.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18 (a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Establish Resilient Supply Chain for the Energy Transition				Risk: Vendor Readiness and Cost Competitiveness from Enhanced Sustainability Expectations			
<b>Description</b>	<p>TNB has the opportunity to strengthen supply chain resilience in support of the energy transition by increasing local sourcing, reducing dependency on imported equipment, and ensuring a diversified pool of qualified suppliers for renewable energy projects, grid modernisation initiatives, green technologies, and digital solutions. Through local procurement development programmes, TNB can enhance vendor ESG standards, strengthen labour and environmental compliance and foster a more responsible and sustainable supply network.</p> <p>Expanding green procurement practices and supporting local manufacturing of transformers, cables, solar equipment, and grid technologies will enable TNB to mitigate global supply chain disruptions, shorten project delivery timelines, and reduce Scope 3 emissions. A resilient, ESG-aligned supply chain enhances delivery of energy transition projects, strengthens operational reliability and supports Malaysia's broader clean energy ecosystem.</p>				<p>TNB aims to empower local vendors in their energy transition journey by strengthening vendor development programmes, increasing local procurement and expanding local participation in new energy projects. Through the TNB Sustainable Procurement Code of Conduct (SPCC), vendors are encouraged to adopt higher standards in environmental responsibility, sustainable practices and innovation.</p> <p>However, vendors may not yet be fully prepared to meet these heightened expectations, which could affect their competitiveness in tender processes and consequently increase reliance on international vendors with greater readiness and capability. Enhanced sustainability expectations may also increase procurement costs, as vendors invest in greener technologies and sustainable materials to reduce carbon footprint across the value chain, alongside potential exposure to higher foreign exchange costs due to increased transactions with international vendors. These pressures may influence procurement outcomes and constrain supplier diversity, which could potentially hinder progress toward TNB's broader sustainability objectives.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Strengthens security and reliability of key fuels and critical components by reducing exposure to global supply shocks and imported material risks.</li> <li>Supports competitive pricing and stable operations through local sourcing, diversified suppliers, and lower carbon-intensity inputs.</li> </ul>				<ul style="list-style-type: none"> <li>Undermines TNB's ability to deliver reliable, affordable, and sustainable energy due to the unavailability or rising costs of critical equipment and materials.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Drives strategic focus on supplier diversification, localisation, and long-term partnerships to ensure the sustained availability of essential equipment and materials.</li> <li>Guides investment into supplier capability development and sustainable procurement practices to align with energy transition needs.</li> </ul>				<ul style="list-style-type: none"> <li>Diversify and strengthen the vendor ecosystem to enhance supply chain resilience and competitiveness.</li> <li>Implement vendor capability-building programmes, including technical support, to accelerate the adoption of sustainability practices.</li> </ul>			
<b>Effect on Financial Performance, Position, &amp; Cash Flows</b>	<ul style="list-style-type: none"> <li>Enables cost avoidance by mitigating rising operating expenses associated with increasing procurement costs.</li> </ul>				<ul style="list-style-type: none"> <li>Higher operating costs resulting from higher foreign exchange costs due to increased transactions with international vendors.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Cost Savings RM5.4 mil	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	Cost Avoidance <RM50 mil	Cost Increase RM54.2 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

### GOVERNANCE IN ACTION

IFRS S1.27(a)(b); IFRS S2.6(a)(b)

TNB's Procurement and Supply Chain governance structure functions through clear escalation channels, regular performance reviews and integrated decision-making. The Board Tender Committee (BTC) provides strategic oversight to ensure integrity, fairness, transparency and resilience across TNB's procurement activities and updates the TNB Board through monthly BTC chairman reports.

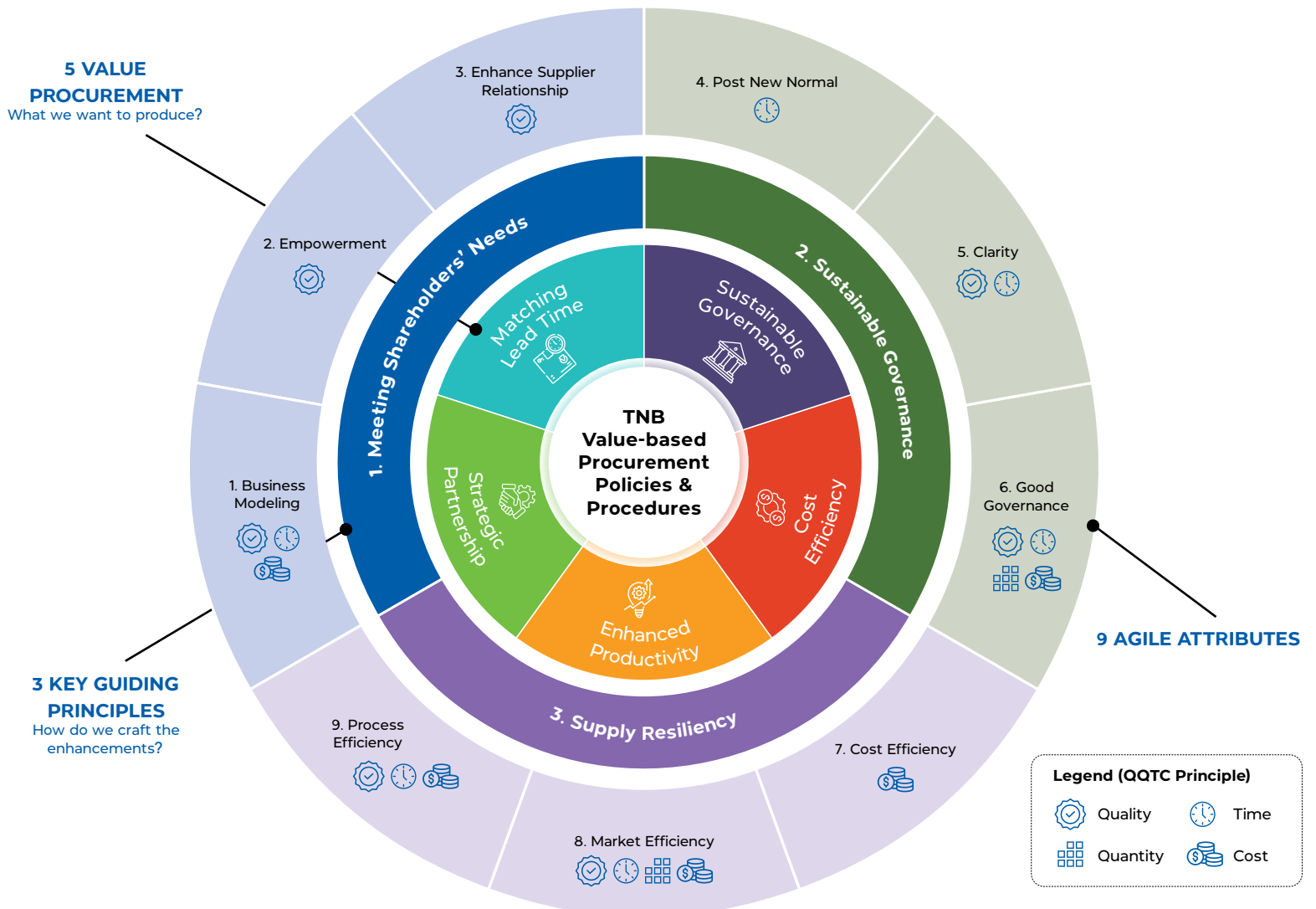
At the management level, procurement and supply chain activities are governed by the Group Management Tender Committee (GMTC) in accordance with the Limits of Authority (LOA). The GMTC, chaired by TNB's President/Chief Executive Officer, ensures clear accountability and transparent decision-making, while strengthening responsible sourcing practices and reinforcing confidence in the integrity of the company's supply chain.

### STRATEGY

IFRS S1.29,30,31,33(a)(b)(c); IFRS S2.14(a)(b)(c)

In 2025, we enhanced our Procurement and Supply Chain Policy and Procedures (PPP), turning it into the TNB Value-Based Procurement Policy and Procedure (TNB VbPPP) framework. This enhancement represents a strategic shift from transaction-driven and cost-focused procurement to a value-based approach to address our stakeholders' needs across the procurement lifecycle, including cost efficiency, quality, sustainability, governance and supply chain resilience.

Our sustainable procurement and supply chain strategy is guided by the TNB VbPPP framework and focuses on delivering five (5) key value outcomes: Matching Lead Time, Sustainable Governance, Cost Efficiency, Enhanced Productivity and Strategic Partnerships. This approach reinforces sustainable and ethical procurement practices while enhancing supply chain resilience through structured and outcome-driven decision-making.

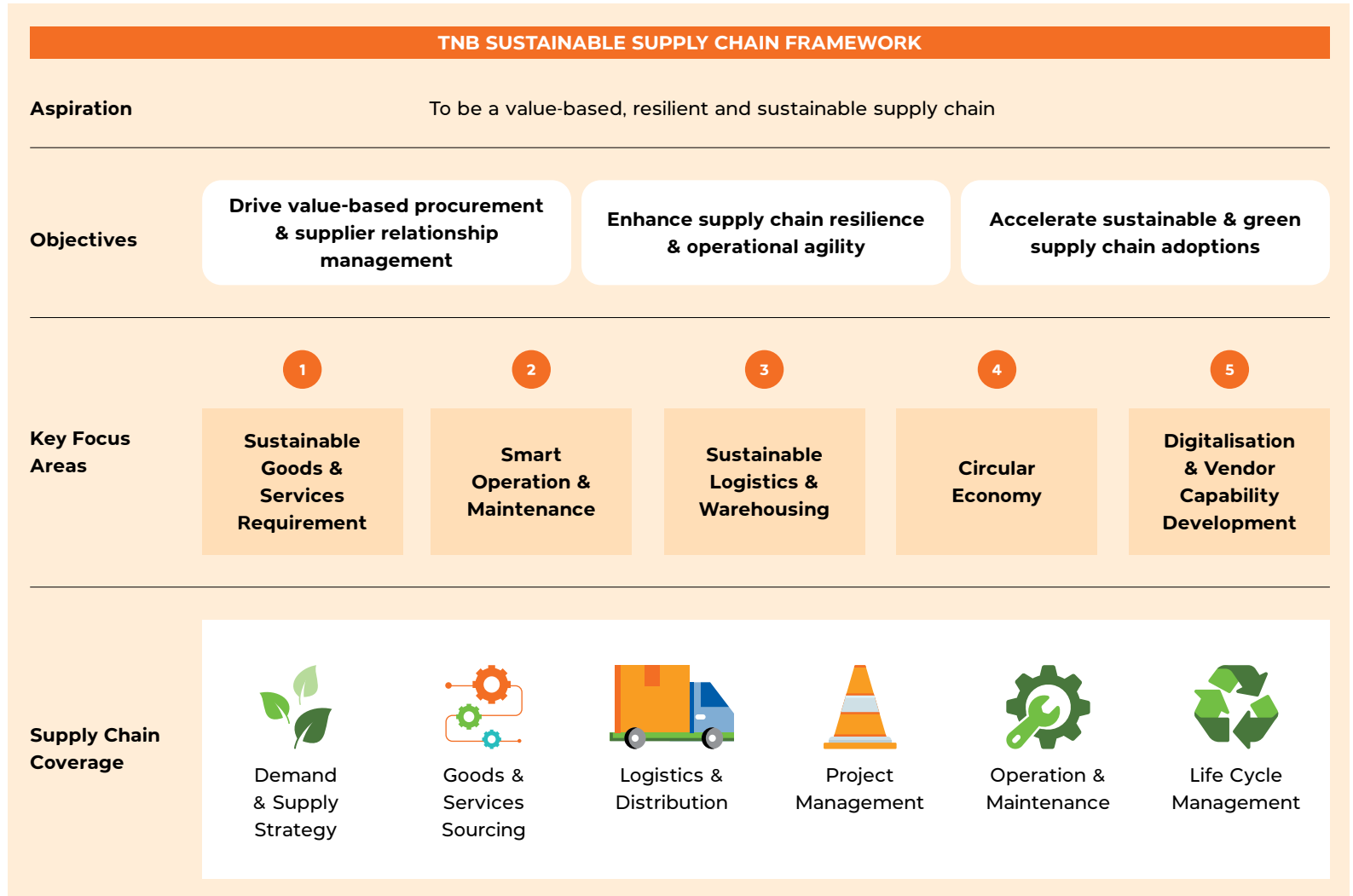


This transforms our procurement and supply chain governance by aligning to evolving business needs, stakeholder expectations and the nation's energy transition agenda.

SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

SUSTAINABLE SUPPLY CHAIN FRAMEWORK

Following the approval of the TNB Sustainable Supply Chain Framework at the end of 2025, we are progressing towards a comprehensive rollout scheduled for the second half of 2026. This strategic shift aligns our supply chain operations more closely with our broader energy transition agenda by integrating environmental, social and governance (ESG) considerations into our core procurement and supply chain processes.



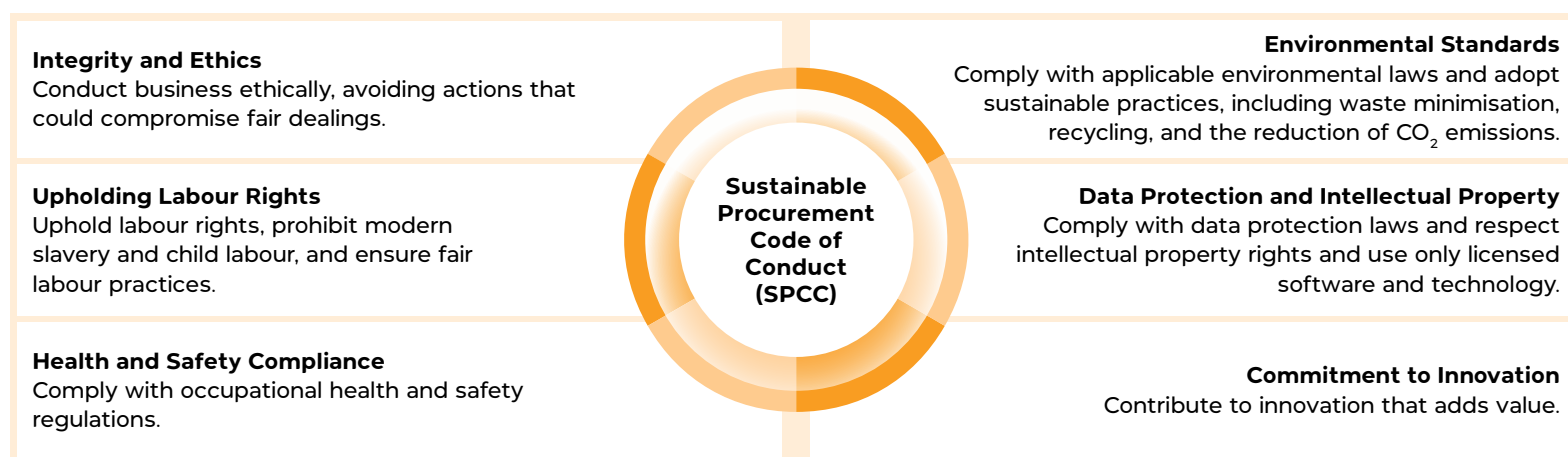
We intend to drive value-based procurement and enhance operational agility through five key focus areas, namely Sustainable Goods and Services, Smart Operations & Maintenance (O&M), Sustainable Logistics, Lifecycle Management and Digitalisation. These initiatives are aimed at improving Scope 3 emissions through vendor declarations and capability development. Furthermore, we are refining our screening processes by embedding ESG criteria from the initial sourcing strategy through to lifecycle waste management. By advancing circular economy practices such as buy-back schemes and recycling initiatives, we aim to minimise environmental impact across all stages of the supply chain.

As we move into the implementation phase, we will engage with our vendors to develop strategic partnerships and collaborations aimed at establishing a sustainable supply chain ecosystem. By systematically embedding these initiatives across our end-to-end operations, we are progressively transforming our high-level objectives into tangible realities that balance commercial value with environmental stewardship. This integrated approach ensures that every process, from initial sourcing to final waste management, actively reinforces our commitment to building a resilient, agile and carbon-conscious ecosystem.

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

### SUSTAINABLE PROCUREMENT CODE OF CONDUCT (SPCC)

Our Sustainable Procurement Code of Conduct (SPCC) reinforces ethical and responsible sourcing across our supply chain while guiding vendors to strengthen their ESG practices. The SPCC sets clear expectations and minimum standards for all suppliers in areas such as integrity and ethical conduct, labour rights, health and safety, environmental stewardship, data protection and intellectual property, as well as innovation. Vendors must comply with these standards as a condition of doing business with us and non-compliance may result in corrective actions, including contract suspension or termination. The SPCC also promotes fair treatment, responsible employment practices and compliance with applicable labour regulations.



Beyond ensuring compliance, we engage vendors as strategic partners in advancing ESG practices and supporting the energy transition across the value chain. Through ongoing supplier engagement initiatives, we collaborate with vendors to strengthen environmental management practices, improve governance standards, and enhance ESG transparency. We also encourage vendors to adopt responsible operational practices and build capabilities to participate effectively in a lower-carbon energy ecosystem. To ensure consistent embedding of ESG considerations across procurement and sourcing activities, vendors are required to submit relevant declarations, including SPCC acceptance, integrity pledges, and Ultimate Beneficial Ownership (UBO) disclosures. We also conduct structured ESG surveys to assess vendor readiness and identify material risks while minimising the burden on small and medium enterprises.

We continuously update the SPCC to align with regulatory requirements, stakeholder expectations, and the accelerating pace of the energy transition. Insights from procurement evaluations, supplier assessments, and reporting mechanisms help to strengthen ESG criteria, sector-specific guidance, and performance benchmarks over time. This adaptive approach enables us to progressively raise standards while supporting vendor resilience, access to sustainable financing and readiness for low-carbon and digitalised energy initiatives. To strengthen transparency and accountability, the SPCC also provides whistleblowing and grievance reporting channels that enable vendors and their employees to report unethical or non-compliant behaviour confidentially through a structured and independent process.

TNB has initiated the implementation of a digital Vendor Grievance Platform, designed to enhance transparency, data integrity, confidentiality, and timeliness in grievance handling. Through this digitalization effort, we are strengthening trust and improving efficiency while reinforcing fair and consistent management of vendor grievances across our supply chain.

Collectively, the effective implementation of both the VbPPP and SPCC ensures that every Ringgit spent contributes to sustainable growth, operational efficiency, ecosystem development, and Malaysia's broader energy transition objectives.

### LOCAL VENDOR AND SUPPLIER DEVELOPMENT PROGRAMME IN MALAYSIA

We are deeply committed to strengthening Malaysia's industrial ecosystem by cultivating competitive, resilient and future-ready local vendors and suppliers. In alignment with the National Energy Transition Roadmap (NETR), TNB has introduced the Bumiputera Vendor Development Programme (PV 3.0) to significantly increase Bumiputera participation and spending. All Bumiputera companies that meet the required Bumiputera equity threshold are eligible for this programme under the following categories.

Category	Component	Bumiputera Equity
Manufacturer	All	≥70%
Contractor	Kontraktor Kerja Bumiputera	100%
	Kontraktor Perkhidmatan Bumiputera	
NETR	Equity	≥70%
	EPCC/Contractor	
	Consultant	
	Digital	

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

▶ As at 2025, the Bumiputera local spend has reached **RM11 billion**, with **1,264** Bumiputera vendors successfully onboarded under the PV 3.0 programme, underscoring our dedication to local growth and sustainable economic development.

▶ In 2025, 15 vendors benefiting from our PV 3.0 programme successfully secured **RM38.2 million** in financing facilities through the Bumiputera Expansion and Catalyst Fund (BECF) by Unit Peneraju Agenda Bumiputera (TERAJU) and its collaborating partners.

A total of 1,264 Bumiputera vendors were successfully onboarded under the PV 3.0 programme, reflecting our continued commitment to enhancing inclusive participation within our supply chain ecosystem. This onboarding initiative provides Bumiputera vendors with access to business opportunities, financing, and competency development. It also includes structured engagement platforms aligned with TNB's operational and sustainability requirements. The onboarding process also enables us to identify our vendor capabilities, assess their readiness, and match them to suitable business opportunities based on technical competency, registration status and service area. By expanding the Bumiputera vendor base, PV 3.0 contributes to a more competitive, resilient and inclusive supplier ecosystem, while supporting national aspirations for Bumiputera economic participation and long-term vendor development.

Category	Component	Vendors Quantity
<b>Manufacturer</b>	All	43
<b>Contractor</b>	<i>Kontraktor Kerja Bumiputera &amp; Perkhidmaran Bumiputera</i>	1,136
<b>NETR</b>	Equity	11
	EPCC/Contractor	68
	Consultant	5
	Digital	23
Note: A total of 22 vendors under the PV 3.0 programme have been appointed across two (2) components/categories		1,264

We are committed to strengthening local supplier capabilities through targeted upskilling programmes and technical competency development initiatives, including the Technical and Vocational Education and Training (TVET) Learn-to-Work programme, the *Kursus Kad Kelayakan Teknikal (KKT)* TNB Sponsorship Programme for vendors, and facilitation of the *Program Pembangunan Kapasiti Vendor (PPKV)* grant.

**RM4.5 million**

*Kursus Kad Kelayakan Teknikal (KKT)*  
TNB Sponsorship Programme

**250 Trainees**

Enrollment in TVET Learn to Work  
Programme (L2W)

**RM200K**

*Program Pembangunan Kapasiti  
Vendors (PPKV)* Grant Facilitation

The provision of relevant training and certification programmes strengthens vendor competencies, enabling more efficient and sustainable support for our operational requirements. Vendor capability development is further enhanced through the KKT Sponsorship Programme, supported by an allocation of RM4.5 million to increase the number of competent workers among vendors. In addition, continuous competency development aligned with Energy Commission requirements, supported by agencies and institutions such as Construction Industry Development Board (CIDB) Malaysia, Majlis Amanah Rakyat (MARA), and Institut Latihan Sultan Ahmad Shah (ILSAS), enhances vendor service quality, competitiveness, and long-term resilience while supporting TNB's sustainable procurement and energy transition objectives.

The TNB TVET Learn-to-Work (L2W) Programme complements these efforts by targeting 250 new trainees to build a pipeline of industry-ready talent for TNB vendors. Delivered in collaboration with accredited training institutions under the Akademi Dalam Industri (ADI) framework approved by the Department of Skills Development (JPK), the programme combines classroom learning and hands-on training. Participants receive nationally recognised certifications (SKM Levels 2 and 3) aligned with the National Occupational Skills Standards (NOSS), covering competencies in solar photovoltaic (PV) installation and maintenance, electrical systems, testing and commissioning, grid interconnection, workplace safety, as well as integrity awareness and basic digital and AI literacy.

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

In 2025, the programme prioritised solar PV installation and maintenance, supported by mandatory safety certifications such as the NIOSH TNB Safety Passport and first aid training. Alongside technical upskilling, the programme also promotes employability among school leavers and underemployed youth while supporting long-term vendor capability development under the broader PV 3.0 framework.



Through the TNB TVET Learn-to-Work (L2W) Programme, trainees gain hands-on experience in real work environments, including rooftop solar installation, and develop industry-ready skills to support the nation's energy transition.

Utilising a "place-and-train" approach, the programme enables participants to be employed by participating vendors while undergoing structured training comprising 80% hands-on experience at vendor worksites and 20% classroom learning through appointed training institutions. Training costs, including technical modules, soft skills development and basic personal protective equipment, are fully subsidised to ease vendor onboarding and workforce training burdens. In addition, participants receive formal employment and wages aligned with minimum wage requirements, as well as statutory benefits throughout the training period. Upon completion, participants obtain recognised SKM certifications and may continue employment with participating vendors.

We actively collaborate with the Ministry of Entrepreneur and Cooperatives Development (KUSKOP) to identify high-potential suppliers and support their participation in international trade missions, fostering global market access and strengthening Malaysia's industrial footprint. Furthermore, we facilitate business matching for transmission-related projects and promote ESG-linked innovation initiatives by local suppliers.

### PROCUREMENT-RELATED HUMAN CAPITAL DEVELOPMENT AND ESG CAPABILITY BUILDING

During the year, our Procurement and Supply Chain Division participated in over 200 training programmes, reflecting our continued investment in workforce capability, operational effectiveness and organisational resilience. Of these, 62 programmes were directly related to Environmental, Social and Governance (ESG) competencies, demonstrating a deliberate effort to embed sustainability considerations into core procurement and commercial functions.

The ESG-related training covered a broad and structured range of domains, including:

- Sustainability and environmental management programmes such as Advanced Scope 3 Emissions Accounting, ISO 14001 auditing, scheduled waste management and energy-related technologies.
- Occupational safety and health certifications including HIRARC and OSH coordination, as well as governance-focused programmes covering ethical conduct, anti-bribery, data protection, and contract governance.
- Complementary training in leadership, risk management, data analytics and project management.

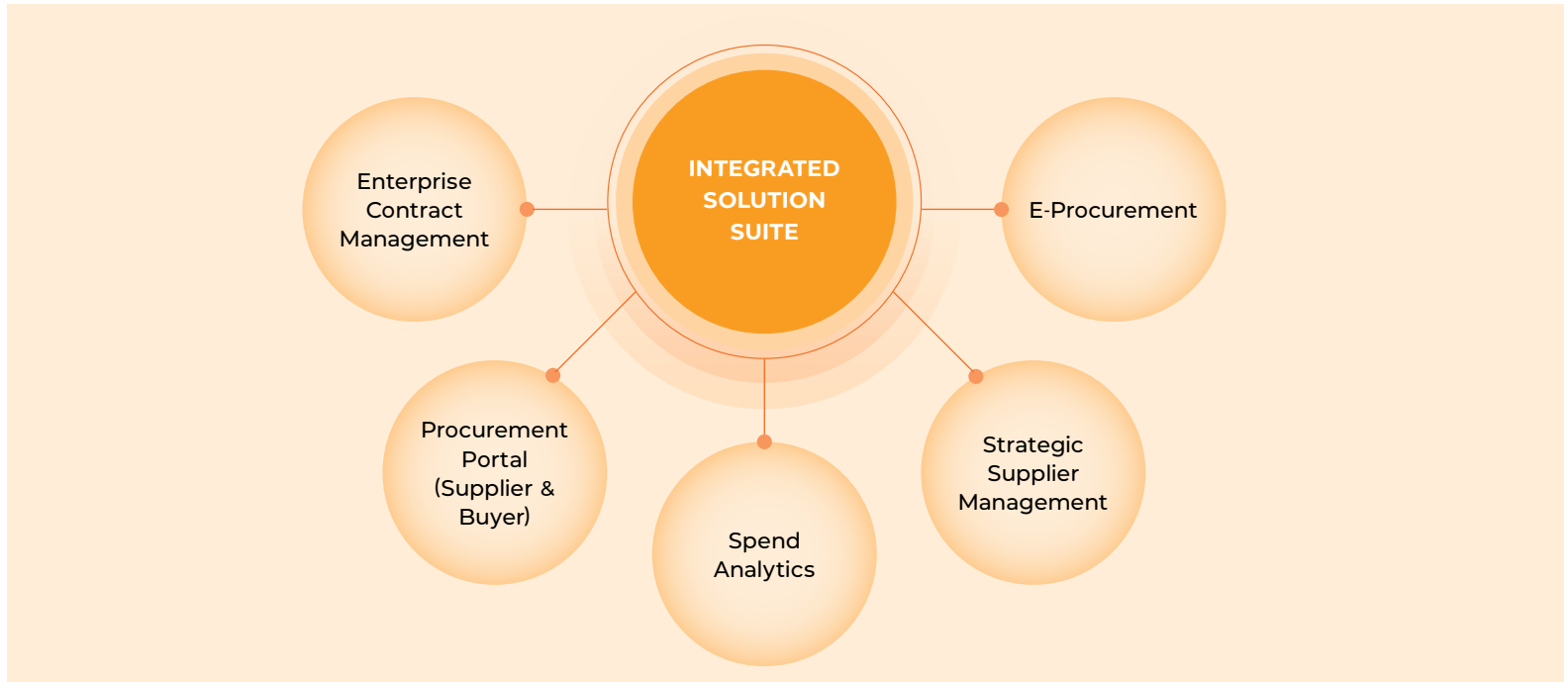
This structured learning approach supports continuous improvement within the Division by enhancing technical proficiency, governance awareness and leadership effectiveness in line with evolving regulatory requirements, operational risks and stakeholder expectations. It also helps embed sustainability principles across procurement activities, including supplier engagement, contract management, risk oversight, and performance monitoring. Moving forward, we will continue to strengthen learning and development initiatives, with a greater focus on emerging technologies, data-driven decision-making, and future-ready capabilities to support the energy transition, ESG integration, and long-term value creation.

### ELEVATED SUPPLIER COMMUNICATION AND COLLABORATION TO STRENGTHEN SUPPLIER ECOSYSTEM

We continue to enhance our Procurement and Supply Chain Division through the adoption of technology and structured frameworks that support best-practice procurement, improved analysis and greater standardisation and operational efficiency. This initiative also strengthens communication and collaboration across procurement functions to promote greater transparency, consistency and value creation.

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

As one of the five modules in our Supply Chain Management (SCM) Project, the Supplier Relationship Management (SRM) is designed to strengthen communication and collaboration with suppliers, drive mutual performance enhancement and support greater standardisation and operational efficiency. The module also aims to foster a resilient and high-performing supply chain that advances our energy transition objectives.



Recognising that collaboration across the supply chain is essential to strengthening resilience and accelerating innovation, we engage suppliers through multiple platforms, including face to face sessions, digital communication channels, capability building workshops and structured feedback mechanisms. These engagements involve Vendor Associations, technical dialogues and continuous improvement forums that encourage suppliers to enhance performance in line with evolving expectations on quality, sustainability and energy transition requirements.

In 2025, we conducted over 15 engagement sessions with strategic partners and ecosystem stakeholders, including Construction Industry Development Board (CIDB) Malaysia, *Unit Peneraju Agenda Bumiputera (TERAJU)*, *Majlis Amanah Rakyat (MARA)*, *Ministry of Entrepreneur and Cooperatives Development (KUSKOP)*, and key vendor associations such as *Persatuan Rakan Niaga Strategik Malaysia (PERNISMA)*, *Persatuan Industri Tenaga Boleh Baharu dan Alam Sekitar (PINTARE)*, *Persatuan Usahawan Tenaga Malaysia (PUTM)*, and the Malaysian Cable Manufacturers Association, along with vendors across TNB subsidiaries. These engagements strengthened shared understanding, capability alignment, and collaborative problem-solving across the supplier ecosystem.



Engagement and feedback sessions with our Vendors including our Subsidiaries to support continuous improvement across our supply chain.

In parallel, our Supplier Relationship Management Department participated in the MBSB Group Anchor Companies Open Day and Vendor Business Matching Sessions, where we shared our PV 3.0 programme. The event served as a platform to strengthen engagement between SMEs and anchor companies, facilitating collaboration and business opportunities.

This participation also reflects our continued commitment to enhancing the capability and competitiveness of local vendors, particularly Bumiputera enterprises and SMEs, in support of a more inclusive and sustainable supply chain. Additionally, it complements broader national priorities, including the National Energy Transition Roadmap (NETR), by supporting stronger participation of local suppliers in the evolving energy value chain.

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN



Our participation in the MBSB Group Anchor Companies Open Day and Vendor Business Matching Sessions provided an important platform to advance the PV 3.0 programme and deepen engagement with SMEs and anchor companies.

In Q1 2026, we hosted a high-level engagement with MOF Gear-Up to review the progress of our PV 3.0 programme, which has appointed Bumiputera vendors to support NETR and ESG-focused projects. The session highlighted our "4P" framework comprising platforms, market opportunities, financing, and competency development as a scalable model for other Government-Linked Companies (GLCs) to elevate local suppliers towards world-class standards.

Through these strategic engagements and collaborations, the 2025 Vendor Satisfaction Survey achieved a score of **91.7%**. We remain fully committed in improving our performance, guided by the constructive feedback provided by vendors at each event.

### FOSTERING ACCOUNTABILITY THROUGH ROBUST SUPPLIER FEEDBACK AND VENDOR GRIEVANCE MECHANISM

A grievance mechanism is an important channel that enables stakeholders to raise concerns, report issues and seek resolution in a safe, fair and transparent manner. At TNB, the mechanism supports accountability and responsible business conduct by ensuring that concerns related to vendor, supplier, and contractor engagements are addressed effectively and in a timely manner.

We have an established Vendor Grievance Mechanism platform on our website that enables vendors, suppliers, contractors and their respective employees or subcontractors to formally raise concerns, report issues or seek resolution on matters encountered throughout their engagement with us. Through the reporting platform, which is supported by a secure and confidential third-party system that safeguards user anonymity and protects identities through robust data security measures, stakeholders across the supply chain are able to securely submit reports and supporting documentation.

In 2025, **18 out of 20** registered grievances have been resolved or are undergoing structured resolution, while the remaining two (2) are under active review, underscoring our commitment to responsible governance.

Additionally, to strengthen transparency, confidentiality, data integrity, and timeliness in grievance handling, progress updates are provided via the platform to support effective grievance management and timely follow-up. Vendors, suppliers and contractors can monitor the status of their reports at any time through the "Follow Up" feature or by downloading the mobile app to receive real-time notifications.

### INNOVATING DIGITAL PROCUREMENT AND SUPPLY CHAIN FOR GREATER EFFICIENCY

We leverage a suite of digital tools to strengthen procurement efficiency, transparency, and supplier collaboration. Centralised demand planning and end-to-end digital procurement systems enhance visibility, traceability, and data-driven decision-making across the supply chain. Automation tools are used to improve the management of high-volume orders and geographically distributed procurement activities, while e-commerce platforms reduce lead times from order placement to delivery. Vendor performance is supported through centralised contractor and supplier evaluation tools, complemented by a two-way material feedback system that facilitates defect reporting, warranty management and continuous improvement. In 2025, we launched the P&SC Mobile Web with the weKNOW AI Chatbot, a mobile web platform featuring a generative AI-powered procurement chatbot, to enhance self-service support and improve collaborative communication.

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

## INDUSTRY BENCHMARKING AND KNOWLEDGE SHARING

In 2025, we continued to review and enhance our procurement, supply chain and warehouse practices through targeted benchmarking and knowledge-sharing engagements. These interactions provided valuable external perspectives on governance, supplier readiness, operational discipline, and collaboration, and informed our ongoing efforts to strengthen supply chain resilience, responsibility, and inclusiveness.

Among these engagements was our participation in an industry discussion at the Malaysia Pavilion at COP30 in **Belém**, Brazil, where our Chief Procurement Officer, Ir. Amir Mahmod Abdullah, shared insights on the role of procurement and supply chains in supporting a just energy transition. Key themes discussed included the importance of reliable data, transparency and supplier preparedness in addressing Scope 3 emissions, together with the need for phased support for SMEs through capability building, digital enablement and access to sustainable financing. These insights are consistent with our broader sustainable procurement agenda, which is underpinned by governance instruments such as the TNB Sustainable Procurement Code of Conduct and structured supplier engagement mechanisms.



At the COP30 Malaysia Pavilion in Belém, TNB highlighted how procurement and supply chain practices, including Scope 3 management and supplier development, are supporting a just energy transition. These efforts are helping to accelerate supplier readiness, improve emissions visibility across the value chain and embed sustainability considerations into procurement decisions.

We also received a visit from Air Selangor's Procurement Department for an industry benchmarking session covering vendor and contract management, procurement digitalisation, supplier performance evaluation and Bumiputera vendor development. The session provided practical perspectives on how structured supplier performance management and digital tools can enhance transparency, accountability, and operational effectiveness. It also reaffirmed the value of supplier development programmes in supporting inclusive growth and continuous improvement in procurement practices.

At the operational level, Gudang Simpanan Bukit Sentosa hosted a working visit by a delegation from Sarawak Energy Berhad on 28 July 2025 to exchange views on warehouse operation excellence and broader inventory management practices. Covering warehouse operations, storage, stock control and safety compliance, the visit provided a practical forum for the sharing of operational experience and good practice. Such exchanges contribute to continuous learning and support ongoing improvement in safe, efficient, and well-governed warehouse operations.



Gudang Simpanan Bukit Sentosa welcomed a working visit from Sarawak Energy Berhad for an on-site exchange focused on warehouse operations, safety practices and inventory management. The session provided an opportunity to exchange insights and strengthen operational capabilities through shared industry experience.

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

### RISK MANAGEMENT

IFRS S1.43(a)(b), 44(a)(b)(c); IFRS S2.24, 25(a)(b)(c)

#### SUPPLY CHAIN RISK ASSESSMENT AND MITIGATION

Supply chain resilience is critical to delivering reliable, affordable, and sustainable energy, particularly in the context of potential disruptions, supply shortages, or rising costs of critical equipment and materials. To mitigate these risks, we adopt a strategic focus on supplier diversification, localisation and long-term partnerships to ensure the sustained availability of essential equipment and materials. Risk exposures related to supply chain resilience are closely monitored as a key risk indicator for critical materials in the electricity supply chain, such as substation equipment, underground cables and accessories, and power plant spares.

For strategic and operationally critical equipment, we maintain spare inventory and contingency arrangements to minimise the risk of supply disruptions and support operational continuity.

Moving forward, we will continue to scale and refine our supplier capability-building programmes in line with the National Energy NETR. These initiatives remain key enablers of TNB's sustainable procurement practices, supporting vendor readiness, project delivery reliability, and the long-term resilience of the energy supply chain.

#### SUPPLY CHAIN SUSTAINABILITY ASSESSMENT

Aligned with this approach, we have conducted a comprehensive Vendor Sustainability Assessment (VSA), a self-declaration ESG questionnaire designed to evaluate suppliers' sustainability performance and ethical business practices. The assessment reinforces sustainability as a shared responsibility and fosters collective action to reduce carbon emissions, improve waste management and support responsible sourcing.

A total of **935** respondents from the Group's active vendor base participated in the 2025 assessment, representing **RM5.4 billion** in total procurement spend. The results provided insights into suppliers' environmental performance, labour and human rights practices, governance systems and their readiness to support future energy transition requirements.

Based on these insights, we identified suppliers with potentially elevated ESG-related risks and implemented a structured mitigation and improvement plan. The plan is underpinned by targeted engagement, including rectification measures, communication, awareness-building, risk-based assessments, gap analyses, and the development of tailored corrective action plans aligned with the Company's sustainability standards and regulatory requirements.

Assessment outcomes and supplier feedback are systematically verified to ensure accuracy, consistency and transparency, forming a robust basis for improvement actions. Suppliers are also supported through capacity-building initiatives such as training, technical advisory services, and access to relevant tools and resources to enhance their ESG practices.

In parallel, enhanced monitoring, governance and continuous engagement are applied to ensure accountability and sustained improvement. Through this structured and collaborative approach, we aim to address key risk drivers, elevate compliance and performance expectations, and progressively build a more resilient, responsible and sustainable supply chain ecosystem.

#### CONTRACTOR ASSESSMENT AND SUPPLIER EVALUATION (CASE)

Maintaining trust and accountability in procurement is fundamental to our operations, with supplier risk management being a key priority. Through the CASE process, we systematically monitor supplier quality, compliance, and performance, enabling the early identification of operational, financial, and ethical risks. Suppliers can access their CASE scores via our Supplier Self-Service Portal, allowing them to track performance and understand potential areas of concern. We proactively engage suppliers to address gaps and implement targeted support and capability development, thereby mitigating the likelihood of supply chain disruptions.

## SUSTAINABLE AND RESPONSIBLE SUPPLY CHAIN

We require our vendors to consistently deliver quality products, work and services. Under our Vendor Report Card framework, a structured platform is provided for Business Units (BU) and vendors to engage on performance issues, specifically for vendors rated three stars and below based on a six-month average performance. This platform facilitates discussions to identify performance gaps and agree on targeted mitigation and improvement actions to enhance overall vendor performance. The implementation aims to ensure consistent high-quality performance by awarded vendors, facilitate continuous monitoring of work progress and strengthen effective communication with our vendors. Vendors also have the opportunity to improve their performance to a higher level.

In 2025, over **3,000 active vendors** were evaluated, with **more than 95%** demonstrating strong and consistent performance across key risk criteria. We have been closely supporting **10 active suppliers** with improvement opportunities through continuous monitoring and collaborative interventions. We look forward to engaging more suppliers in the future to further strengthen overall supply chain resilience and ensure sustainable, long-term value.

## OUR PERFORMANCE

ISSB/Bursa/GRI	Metric	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>SUPPLY CHAIN MANAGEMENT</b>								
<b>Proportion of Spending on Local Suppliers</b>								
GRI 204-1	Number of local vendor	Number	3,632	3,639	3,681	-	-	
	Percentage of local suppliers	%	94.98	93.86	95.96	-	-	
	Total spend on local suppliers	RM billion	17.18	19.21	20.80	-	-	
Bursa C7(a) [Supply Chain Management]	Percentage of local suppliers	%	46.45	52.81	57.08	>35%	-	
GRI 204-1								
<b>Total Number and Percentage of Vendors to Whom the Organisation's Anti-Corruption Policies and Procedures have been Communicated</b>								
GRI 205-2	Number of vendors with signed Integrity Pacts	Number	1,550	1,385	797	-	-	
	Percentage of vendors with signed Integrity Pacts	%	59.30	38.10	20.80	-	-	
	Number of vendors with completed anti-corruption training	Number	267	1,237	1,070	-	-	
	Percentage of vendors with completed anti-corruption training	%	10.00	34.00	27.90	-	-	
<b>Confirmed Incidents of Corruption Involving Vendors</b>								
GRI 205-3	Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	Number	2	0	1	-	-	

## MT 15 DIGITAL TRUST AND CYBERSECURITY



### WHY IS IT IMPORTANT?

As we accelerate our energy transition and digital transformation journey, digital trust and cybersecurity have become essential to ensuring the security, reliability and resilience of Malaysia's electricity ecosystem. The adoption of digitalisation and Artificial Intelligence (AI) across our operations enhances efficiency, strengthens grid resilience and improves customer experience. At the same time, the increasing convergence of Information Technology (IT) and Operational Technology (OT) systems reinforces the importance of safeguarding critical infrastructure and maintaining stakeholder trust in an increasingly connected energy landscape.

We continuously strengthen the security and resilience of our IT and OT environments through proactive risk management, threat monitoring and incident response capabilities. Through Board oversight and management commitment, cybersecurity considerations are embedded into our operational and digital strategies. We also align with regulatory requirements and industry best practices to safeguard the confidentiality, integrity, privacy and availability of customer and stakeholder data.

### OPPORTUNITY AND RISK

IFRS S1.29(a)(b)(c)(d), 30(a)(b)(c), 31, 32(a)(b), 33(a), 34(a)(b), 35(a)(b)(c)(d);  
IFRS S2.9(a)(b)(c), 10(a)(b)(c)(d), 11, 12, 13(a)(b), 14(a)(b), 15(a)(b), 16(a)(b)(c)(d), 17, 18 (a)(b)

\*Short: 2026; Medium: 2027–2030; Long: 2031–2050

Opportunity and Risk	Opportunity: Strengthen Cybersecurity and Data Protection Across TNB's Value Chain				Risk: Challenges in Maintaining a Proactive Cybersecurity Posture			
<b>Description</b>	<p>TNB has a strategic opportunity to strengthen cybersecurity and data protection across its value chain, safeguarding both Malaysia's national critical infrastructure and the data of over 10 million customers amid accelerating digitalisation and increasing adoption of Artificial Intelligence (AI).</p> <p>By enhancing cybersecurity resilience across Information Technology (IT), Operational Technology (OT), and AI-driven systems through continuous monitoring, threat intelligence, and compliance with global standards, TNB can prevent service disruptions, financial losses, and reputational risk.</p> <p>Robust data protection enables the utility to maintain data integrity and unlock new business value, including personalised energy solutions and energy-transition offerings, and improved operational efficiencies.</p>				<p>As TNB accelerates its digital transformation and integrates artificial intelligence (AI) and other advanced technologies across its business model and value chain, the organisation is exposed to vulnerabilities in an evolving cyber threat landscape.</p> <p>The growing convergence of IT and OT, along with the integration of AI-driven systems into operational processes, increases the exposure of critical infrastructure to cybersecurity threats, including ransomware, data breaches, and system manipulation. Moreover, as TNB's customer base is expected to expand, the resulting increase in sensitive and personal data will further heighten the responsibility to safeguard it.</p> <p>A successful cyberattack could compromise grid reliability, disrupt electricity supply, expose sensitive operational or customer data, resulting in financial loss and adverse reputation.</p>			
<b>Impact on Business Model &amp; Value Chain</b>	<ul style="list-style-type: none"> <li>Enhances resilience of IT and OT systems by reducing vulnerability to cyber incidents, ensuring continuity of grid operations and safeguarding sensitive customer and operational data.</li> <li>Strengthens trust in digital platforms, enabling the secure delivery of emerging energy transition solutions such as personalised services, advanced analytics, and smart grid applications.</li> </ul>				<ul style="list-style-type: none"> <li>Undermines TNB's ability to deliver reliable energy and compromising the confidentiality of sensitive information and customer data.</li> </ul>			
<b>Effect on Strategy &amp; Decision Making</b>	<ul style="list-style-type: none"> <li>Prioritises targeted investments in threat monitoring, OT/IT hardening, data governance, and workforce cybersecurity capability development to proactively manage evolving risks.</li> <li>Reinforces the integration of cybersecurity into digital transformation programmes, guiding enterprise-wide protocols for secure system design and incident response.</li> </ul>				<ul style="list-style-type: none"> <li>Enhance TNB's cybersecurity posture through continuous threat monitoring and the development of workforce capabilities.</li> <li>Enhance incident response planning to proactively safeguard critical infrastructure and protect operational data.</li> </ul>			
<b>Effect on Financial Performance, Position &amp; Cash Flow</b>	<ul style="list-style-type: none"> <li>Avoids significant financial losses associated with service disruptions, data breaches, and incident response, while reducing long-term insurance and recovery costs.</li> </ul>				<ul style="list-style-type: none"> <li>Increased operating costs arising from higher insurance premiums and potential losses due to cyber incidents.</li> </ul>			
<b>Time Horizon</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>	<b>Current</b>	<b>Short</b>	<b>Medium</b>	<b>Long</b>
<b>Anticipated Effect on Financial Position</b>	Cost Savings RM65.8 mil	Cost Avoidance RM50 mil – RM450 mil	Cost Avoidance RM50 mil – RM450 mil	Cost Avoidance RM50 mil – RM450 mil	Cost Increase RM9.4 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil	Cost Increase <RM50 mil

## GOVERNANCE IN ACTION

The TNB Board provides oversight and ensures business continuity and digital resilience, aligning digitalisation, AI, and cybersecurity strategies with corporate objectives. The Energy Commission of Malaysia sets regulatory requirements for the energy sector to ensure secure and reliable operations.

At the management level, the Digital & Artificial Intelligence Committee, chaired by the TNB President/Chief Executive Officer and comprising senior management, oversees and approves TNB's cybersecurity and ICT strategic direction. The Cyber Security Council, chaired by the Chief Digital & Information Officer and comprising senior cybersecurity management, is responsible for aligning, reviewing, and overseeing the implementation of cybersecurity initiatives across the organisation, translating strategic direction into tactical execution. The Council ensures cross-functional coordination, monitors the risk posture, evaluates programme progress, and addresses issues that may impact the enterprise. The committee and council convene biannually or as needed to ensure continuous oversight and timely decision-making.

At the operational level, the Cyber Security Working Group, chaired by the Head of Cybersecurity and comprising management-level cybersecurity professionals, is responsible for executing and reviewing cybersecurity controls, projects, and remediation efforts across IT and OT environments. The Working Group is responsible for ensuring technical implementation, operational readiness, and compliance with approved frameworks and standards, while providing periodic updates to governance bodies on risks, incidents, and ongoing initiatives.

## REGULATORY COMPLIANCE AND DATA PROTECTION

### CYBERSECURITY ACT 2024

The Cyber Security Act 2024 governs the protection of Malaysia's critical information infrastructure by setting standards for cyber risk management and coordinated incident response. Key enhancements include mandatory reporting of cybersecurity incidents to the Energy Commission, the National Cyber Security Agency (NACSA), and the TNB Board, strengthening regulatory oversight. In line with national requirements, TNB implements measures aligned with the Cyber Security Act 2024.

TNB's cybersecurity management is governed by the TNB ICT Security Policy and related guidelines, which ensure employees are aware of their responsibilities in safeguarding critical ICT assets. Through 24-hour cyber threat monitoring, we support the protection of the national grid and the continuity of electricity supply.

### PERSONAL DATA PROTECTION ACT 2010

The Personal Data Protection Act 2010 ("PDPA") governs the processing of personal data in commercial transactions by data controllers. After more than a decade in effect, it has been amended through the Personal Data Protection (Amendment) Act 2024, introducing enhanced requirements to strengthen data privacy and security.

TNB's personal data protection framework is aligned with the PDPA, its subsidiary legislation, including the Personal Data Protection Code of Practice for the Utilities Sector (Electricity) Version 2.0, and internal policies. This framework underpins accountability, transparency and responsible data handling, supporting stakeholder trust and operational compliance.

As a data controller, TNB processes significant volumes of personal data, including information relating to customers, employees, and vendors. Therefore, it is crucial to ensure compliance with the applicable legislation governing personal data protection. Accordingly, TNB has appointed five (5) Data Protection Officers (DPOs) to oversee and monitor adherence to PDPA requirements. Their role is essential in safeguarding personal data, mitigating the risk of non-compliance, and promoting a culture of accountability and transparency within the organisation. Proper handling of personal data is essential to maintaining public trust, safeguarding privacy, and mitigating reputational risks.

## STRATEGY

### CYBERSECURITY APPROACH

The Cyber Security Operating Model (CSOM) serves as TNB's cybersecurity framework, designed to enable the structured and consistent management of cyber risks. It establishes clear governance, risk management, and compliance practices, ensuring alignment with business objectives, regulatory requirements, and enterprise risk management principle. As part of its cybersecurity practices, employees and TNB contractors adhere to strict onboarding and offboarding protocols, ensuring that access is properly managed throughout the personnel lifecycle. These controls are reinforced by TNB's enterprise risk management practices, where cyber risks are identified, assessed, and mitigated in line with the organisation's business objectives and digital transformation priorities.

## DIGITAL TRUST AND CYBERSECURITY

### PERSONAL DATA PROTECTION ACT APPROACH

In order to ensure compliance with the Personal Data Protection (Amendment) Act 2024, TNB has implemented the following initiatives:

- 1 Issuance of Legal Updates and Guidance Materials**

Comprehensive legal updates, circulars, and guidance notes were developed and disseminated across TNB's communication platforms. These materials include a detailed legal update outlining key changes introduced by the PDPA amendments, a revised TNB Personal Data Protection ("PDP") Notice for customers, a newly developed PDP Notice for employees and job applicants, and updated contractual clauses aligned with regulatory requirements. The PDP notices were made available via TNB's website and digital platforms, ensuring transparency and accessibility for all stakeholders.
- 2 Engagement with the Personal Data Protection Commissioner**

TNB actively engages with the Personal Data Protection Commissioner's Office, providing feedback on amendments and public consultation papers, seeking guidance, and participating in discussions to align its strategic direction with regulatory expectations.
- 3 Appointment of TNB Data Protection Officer (DPO)**

TNB has appointed five (5) DPOs, who are entrusted with overseeing and ensuring the security and integrity of TNB's personal data, reinforcing TNB's commitment to legal compliance and personal data protection.
- 4 Continuous compliance activities**

As part of our ongoing commitment to regulatory alignment and operational excellence, we continuously implement a series of compliance initiatives including continuous engagement sessions with data controller forum for the Utility Sector (Electricity) and conducting Personal Data Protection Observation Audits.

### CUSTOMER DATA MANAGEMENT APPROACH

TNB applies structured processes to enable customers to manage their personal data effectively. Through Data Access and Correction Request Forms, customers are able to request access to or correction of their information, ensuring that their data remain accurate and complete. These controls are supported by a structured data retention framework aligned with corporate policies and contractual agreements, which ensures that data is retained only for the duration necessary to protect stakeholder interests and comply with legislative requirements. Oversight and monitoring are provided by dedicated teams including Customer Care and the respective DPO to ensure that customer enquiries and concerns are handled promptly and transparently. These measures contribute to maintaining trust and confidence among TNB's customers.

Through the application of these processes, controls, and monitoring mechanisms, TNB supports the responsible management of customer data, helping to ensure that customer information is accurate, complete, and handled in a transparent manner.

### CYBERSECURITY AWARENESS THROUGH TRAINING

Cybersecurity awareness programmes are implemented across the Group through various learning modalities, including e-learning modules, newsletters, and hybrid engagement sessions. Mandatory cybersecurity training is conducted annually for all permanent and contract employees, ensuring that personnel at all levels are equipped with knowledge of cybersecurity risks and mitigation strategies. As part of these continuous awareness and capability-building efforts, cybersecurity drill programmes provide hands-on, simulated training across TNB.

In 2025, a cybersecurity tabletop simulation drill was conducted to enhance decision-making, incident response coordination, and crisis management readiness. This scenario-based drill enables key personnel to discuss and work through their roles, responsibilities, and response actions in a controlled environment, thereby enhancing TNB's preparedness for real-world cybersecurity incidents.

These comprehensive risk management measures form a strong foundation for TNB's holistic approach to cybersecurity, data privacy, and customer data protection.

## RISK MANAGEMENT

### CYBERSECURITY RISK ASSESSMENT

Cybersecurity risk assessment is conducted comprehensively across all business operations to identify and implement enhancements to the cybersecurity operating model, digitalisation strategies, ransomware mitigation strategies and business continuity planning. TNB is progressively aligning its ICT operations with ISO/IEC 27001 standards and continues to enhance its cybersecurity posture through continuous improvement initiatives and regular IT and OT security audits.

TNB operates a dedicated Security Operations Centre (SOC) that provides 24/7 monitoring of networks, systems, and applications for the detection and response to cybersecurity threats. The SOC strengthens the resilience of TNB's digital and operational infrastructure through timely incident response, continuous threat analysis, and enforcement of cybersecurity controls, while ensuring compliance with applicable regulatory and data protection requirements.

In addition to our 24-hour cyber threat monitoring, the following measures prioritising cybersecurity are undertaken:

1. Enhance cybersecurity situational awareness through threat intelligence.
2. Adopt cybersecurity risk assessment protocols for both IT and OT systems.
3. Annual external cybersecurity resilience assessments of TNB's key installations conducted by the *Jawatankuasa Pemeriksaan Keselamatan Sasaran Penting* under the leadership of the Malaysia Chief Government Security Officer (CGSO).
4. Group-wide effort to classify data according to criticality and sensitivity levels.

These comprehensive risk management measures form a strong foundation for TNB's holistic approach to cybersecurity, data privacy, and customer data protection.

### DATA PROTECTION RISK ASSESSMENT

At TNB, Data Protection Risk Assessment aims to safeguard stakeholders and uphold legal requirements in the processing of personal data through the conduct of Data Protection Impact Assessments (DPIAs) across all business operations, ensuring protection for both individuals and the organisation through:

#### A) IDENTIFYING AND ASSESSING PRIVACY RISKS

Evaluate potential risks to individuals' rights and freedoms associated with personal data processing activities.

#### B) ENSURING NECESSITY AND PROPORTIONALITY

Assess whether the proposed data collection or processing is in compliance with the PDPA 2010.

#### C) DESIGNING AND IMPLEMENTING MITIGATING CONTROLS

Ensure compliance with the PDPA 2010 through the implementation of technical and organisational measures, including encryption, access controls, and consent management, to mitigate risks associated with personal data processing.

DPIAs enable TNB to anticipate and manage privacy risks prior to the implementation of data processing activities, supporting digitalisation and innovation while ensuring regulatory compliance and maintaining stakeholder trust.

## OUR PERFORMANCE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>DATA PRIVACY AND SECURITY</b>								
<b>Total Number of Substantiated Complaints Received Concerning Breaches of Customer Privacy</b>								
Bursa C8(a) [Data Privacy and Security]	Total number of customer privacy complaints	Number	0	0	0	Zero complaints	Zero complaints	
GRI 418-1								

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>END-USE EFFICIENCY AND DEMAND</b>								
IF-EU-420a.2	Percentage of electric load served by smart grid technology	%	-	40.2	52.2	-	-	
<b>GRID RESILIENCY</b>								
<b>Average power outage duration (TNB)</b>								
IF-EU-550a.2 G4 - EU29	System Average Interruption Duration Index (SAIDI)	Minutes/ customers/ year	46.10	47.88	46.93	≤47	≤47	For TNB operations in Peninsular Malaysia.
IF-EU-550a.2 G4 - EU28	System Average Interruption Frequency Index (SAIFI)	Minutes/ customers/ year	0.80	0.96	0.95	-	-	For TNB operations in Peninsular Malaysia.
IF-EU-550a.2	Customer Average Interruption Duration Index (CAIDI)	Minutes/ customers/ year	57.40	50.13	49.61	≤60	≤60	For TNB operations in Peninsular Malaysia.
<b>Average power outage duration (SE)</b>								
IF-EU-550a.2 G4 - EU29	System Average Interruption Duration Index (SAIDI)	Minutes/ customers/ year	266.37	203.65	187.13	≤220	≤220	
IF-EU-550a.2 G4 - EU28	System Average Interruption Frequency Index (SAIFI)	Minutes/ customers/ year	12.61	10.79	9.88	-	-	
IF-EU-550a.2	Customer Average Interruption Duration Index (CAIDI)	Minutes/ customers/ year	21.12	18.87	18.94	-	-	
<b>Incidents of non-compliance with electricity infrastructure regulations and standards</b>								
IF-EU-550a.1	Number of incidents of non-compliance with physical standards and regulations	Number	-	0	0	-	-	
	Number of incidents of non-compliance with cybersecurity standards and regulations	Number	-	0	0	-	-	
	Total number of incidents of non-compliance with physical or cybersecurity standards or regulations	Number	-	0	0	-	-	
<b>Operation impacted by disruption (TNB)</b>								
IF-EU-550a.2	Total generation and transmission capacity impacted by disruption	MW	-	-	892	-	-	For TNB operations in Peninsular Malaysia.
	Total population affected by disruption	Number	-	-	367,462	-	-	For TNB operations in Peninsular Malaysia.
<b>Operation impacted by disruption (SE)</b>								
IF-EU-550a.2	Total generation and transmission capacity impacted by disruption	MW	-	-	657	-	-	
	Total population affected by disruption	Number	-	-	215,180	-	-	
<b>TRANSMISSION AND DISTRIBUTION LINES</b>								
<b>Length of above and underground transmission and distribution lines by regulatory regime (TNB)</b>								
IF-EU-000.C G4 - EU4	Transmission	Circuit-km	26,093	26,371	26,592	-	-	For TNB operations in Peninsular Malaysia
	Distribution	Circuit-km	761,546	708,763	715,976	-	-	For TNB operations in Peninsular Malaysia
IF-EU-000.E G4 - EU4	Total wholesale electricity purchased	GWh	-	-	133,350	-	-	For TNB operations in Peninsular Malaysia
<b>Length of above and underground transmission and distribution lines by regulatory regime (SE)</b>								
IF-EU-000.C G4 - EU4	Transmission	Circuit-km	3,161	3,147	3,150	-	-	
	Distribution	Circuit-km	27,668	29,265 <sup>1</sup>	27,252	-	-	
IF-EU-000.E G4 - EU4	Total wholesale electricity purchased	GWh	-	-	6,518	-	-	

<sup>1</sup> Data for FY2024 Sabah Electricity (SE) length of distribution line has been restated to align with the declaration submitted to ECoS.

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks	
<b>ENERGY TRANSITION AND INNOVATION</b>									
<b>Installations of RE and infrastructure associated with smart grid technology</b>									
G4 - EU29	RE Capacity	MW	3,989	4,152	4,303	-	10 GW by 2030		
	Number of smart meters (AMI) installed	Number	873,740	949,226	1,064,537	1,000,000 for FY 2025	-		
	Cumulative number of smart meters (AMI) installed	Number	3,549,489	4,498,715	5,563,252	-	10.4 million by end of 2030		
	Number of EV charging point	Number	14 DC 3 AC	48 DC 18 AC	206 DC 50 AC	250 by 2025 (cumulative)	-		
<b>SYSTEM EFFICIENCY</b>									
<b>Generation plant performance by regulatory regime</b>									
G4-EU11	Equivalent Availability Factor (EAF)	%	83.30	81.17	87.70	-	-	For TNB operations in Peninsular Malaysia	
		%	78.74	75.19	73.22	-	-	For SESB operation in Sabah	
		%	91.88 <sup>2</sup>	82.71 <sup>3</sup>	93.91	-	-	For TNB operations in international footprint	
		%	87.30 <sup>2</sup>	65.32 <sup>3</sup>	92.35	-	-	For TNB operations in international footprint for gas	
		%	95.30 <sup>2</sup>	94.79 <sup>3</sup>	96.51	-	-	For TNB operations in international footprint for hydro	
		%	97.91 <sup>2</sup>	97.82 <sup>3</sup>	95.76	-	-	For TNB operations in international footprint for solar	
		%	94.36 <sup>2</sup>	91.14 <sup>3</sup>	92.60	-	-	For TNB operations in international footprint for wind	
		Equivalent Unplanned Outage Factor (EUOF)	%	6.58	5.40	3.71	-	-	For TNB operations in Peninsular Malaysia
	%		20.05	21.19	24.29	-	-	For SESB operation in Sabah	
	%		8.12 <sup>2</sup>	17.29 <sup>3</sup>	6.09	-	-	For TNB operations in international footprint	
	%		12.70 <sup>2</sup>	34.68 <sup>3</sup>	7.65	-	-	For TNB operations in international footprint for gas	
	%		4.70 <sup>2</sup>	5.21 <sup>3</sup>	3.49	-	-	For TNB operations in international footprint for hydro	
	%		2.09 <sup>2</sup>	2.18 <sup>3</sup>	4.24	-	-	For TNB operations in international footprint for solar	
	Transmission and distribution network losses	G4-EU12	Transmission	%	1.56	1.32	0.91	-	-
Distribution			%	5.42	5.84	5.69	-	-	For wholly-owned distribution network in Peninsular Malaysia
<b>Electricity Transmission System</b>									
G4-EU12		Transmission System Minutes	Minutes	0.4830	0.0019	0.1537	-	-	For TNB operations in Peninsular Malaysia
			Minutes	16.83	0.548	9.93	-	-	For SESB operations in Sabah
		Percentage of System Availability	%	99.77	99.79	99.81	-	-	For TNB operations in Peninsular Malaysia
			%	99.99	99.99	99.99	-	-	For SESB operations in Sabah

<sup>2</sup> Data restated due to itemisation based on international footprint category.

<sup>3</sup> Data restated due to percentage calculation.

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>GHG EMISSIONS</b>								
<b>Direct (Scope 1) GHG emissions</b>								
IF-EU-110a.1	Total direct GHG emissions (Scope 1)	Million tCO <sub>2</sub> e	38.78 <sup>4</sup>	38.80 <sup>4</sup>	39.31 <sup>5</sup>	-	-	
Bursa C11(a) [Emissions Management]								
GRI 305-1								
<b>Energy indirect (Scope 2) GHG emissions</b>								
IF-EU-110a.2	Indirect (Scope 2) GHG emissions	Million tCO <sub>2</sub> e	0.331	0.321 <sup>4</sup>	0.314	1% reduction annually	-	
Bursa C11(b) [Emissions Management]								
GRI 305-2								
<b>Other indirect (Scope 3) GHG emissions</b>								
IF-EU-110a.2	Business travel	Million tCO <sub>2</sub> e	0.037	0.035	0.056	1% reduction annually	-	
Bursa C11(c) [Emissions Management]	Employee commuting	Million tCO <sub>2</sub> e	0.063	0.063	0.112	1% reduction annually	-	
	Total Scope 3 GHG emissions	Million tCO <sub>2</sub> e	0.100	0.098	0.168	-	-	
GRI 305-3								
<b>Other indirect (Scope 3) GHG emissions - Business travel by transportation type</b>								
GRI 305-3	By air travel	tCO <sub>2</sub> e	1,319	532	988	-	-	
	By land travel	tCO <sub>2</sub> e	35,942	34,327	56,132	-	-	
<b>Other indirect (Scope 3) GHG emissions - Employee commuting by mode of transport</b>								
GRI 305-3	By car	tCO <sub>2</sub> e	54,067	53,888	95,862	-	-	
	By motorcycle	tCO <sub>2</sub> e	8,030	8,003	14,237	-	-	
	By e-hailing	tCO <sub>2</sub> e	491	439	781	-	-	
	By public transport	tCO <sub>2</sub> e	440	489	871	-	-	
<b>GHG emissions intensity</b>								
GRI 305-4	Scope 1	tCO <sub>2</sub> e/MWh	0.5465	0.5571	0.5370 <sup>6</sup>	5% reduction of emissions intensity compared to 2024	5% annual intensity reduction	
<b>GHG emissions avoidance</b>								
GRI 305-5	Total avoided emission	Million tCO <sub>2</sub> e	7.38	8.46	8.75	-	-	
	Advanced Combined Cycle Technology	tCO <sub>2</sub> e	3,550,034	3,249,752	3,241,789	-	-	
	Large Hydro Power	tCO <sub>2</sub> e	3,098,284	3,568,917	3,791,562	-	-	
	Clean Coal Technology	tCO <sub>2</sub> e	575,560	1,381,184	1,381,023	-	-	
	Small Renewable Energy	tCO <sub>2</sub> e	70,410	108,811	185,263	-	-	
	Large Scale Solar	tCO <sub>2</sub> e	81,307	145,271	146,413	-	-	
	New Streetlight Fittings	tCO <sub>2</sub> e	1,954	9,528	0	-	-	
	Tree Planting	tCO <sub>2</sub> e	842	1,101	1,209	-	-	
	Electric Vehicles	tCO <sub>2</sub> e	18	603	334	-	-	
<b>GREENHOUSE GAS EMISSION</b>								
<b>Gross global Scope 1 GHG emissions<sup>7</sup></b>								
IF-EU-110a.1	CO <sub>2</sub>	Metric tonnes	-	-	41,135,914.05	-	-	
	CH <sub>4</sub>	Metric tonnes	-	-	437.23	-	-	
	N <sub>2</sub> O	Metric tonnes	-	-	819.65	-	-	
	HFCs	Metric tonnes	-	-	1.17	-	-	
	SF <sub>6</sub>	Metric tonnes	-	-	3.73	-	-	

<sup>4</sup> Data restated based on audited numbers by internal auditor (FY2024) and external auditor (FY2023).

<sup>5</sup> Excluding external factors that lead to absolute emissions of 41.36 million tCO<sub>2</sub>e in FY2025.

<sup>6</sup> Excluding external factors that lead to emissions intensity of 0.565 tCO<sub>2</sub>e/MWh in FY2025.

<sup>7</sup> GHG emissions breakdown by types of gases is based on total emissions, inclusive of external factors.

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Percentage of emissions covered under regulation</b>								
IF-EU-110a.1	Percentage of GHG emissions covered under emissions-limiting regulation	%	-	-	0	-	-	None of TNB's reported emissions fall within emissions-limiting regulatory body
	Percentage of GHG emissions covered under emissions-reporting regulation	%	-	-	0	-	-	None of TNB's reported emissions fall within emissions-reporting regulatory body
<b>GHG emissions associated with power deliveries<sup>8</sup></b>								
IF-EU-110a.2	GHG emissions associated with power deliveries	Million tCO <sub>2</sub> e	-	-	98,679,238.61	-	-	
<b>GENERATION PORTFOLIO</b>								
<b>Installed capacity broken down by primary source</b>								
G4-EU1	Total Installed Capacity	MW	17,949.54	16,385.35	16,028.59	-	-	
G4-EU2	Gas	MW	6,147.77	5,145.07	4,605.90	-	-	
G4-EU3	Coal	MW	7,378.89	6,790.00	6,790.00	-	-	
G4-EU4	Hydro	MW	2,666.55	2,666.55	2,682.96	-	-	
G4-EU5	Diesel	MW	258.96	203.18	225.11	-	-	
G4-EU6	Solar	MW	1,135.85	1,298.90	1,433.36	-	-	
G4-EU7	Biomass	MW	5.00	5.00	5.00	-	-	
G4-EU8	Biogas	MW	2.40	2.40	2.33	-	-	
G4-EU9	Wind	MW	179.47	179.47	179.47	-	-	
G4-EU10	Oil	MW	142.88	71.44	71.44	-	-	
G4-EU11	Solar Hybrid	MW	31.77	23.34	33.02	-	-	
<b>Net energy output broken down by primary energy source</b>								
IF-EU-000.D	Total Net Energy Output	GWh	79,535.45	73,185.02	75,373.46	-	-	
G4-EU2	Gas	GWh	26,065.97	22,238.84	19,769.21	-	-	
	Coal	GWh	44,826.58	40,678.64	46,158.96	-	-	
	Hydro	GWh	6,452.92	7,148.16	7,380.92	-	-	
	Diesel	GWh	365.68	532.65	412.82	-	-	
	Solar	GWh	572.01	1,274.96	1,023.61	-	-	
	Biomass	GWh	13.16	31.37	15.61	-	-	
	Biogas	GWh	13.80	-	9.90	-	-	
	Wind	GWh	544.43	852.24	447.17	-	-	
	Oil	GWh	660.52	395.21	107.68	-	-	
	Solar hybrid	GWh	20.38	32.95	47.58	-	-	
<b>ENERGY MANAGEMENT</b>								
<b>Energy consumption within the organisation</b>								
Bursa C4(a) [Energy Management]	Total energy consumption within the organisation	GJ	305,274,361.37 <sup>9</sup>	321,199,523.47 <sup>9</sup>	327,104,372.99 <sup>9</sup>	1% reduction annually	-	
GRI 302-1								
GRI 302-3	Energy intensity ratio for the organization	GJ/MWh	5.39	4.30	4.29	Less than 6 GJ/MWh	-	
<b>Total fuel consumption within the organisation from renewable sources</b>								
GRI 302-1	Biomass	GJ	1,134,665	980,948	178,473	-	-	
	Biodiesel (7% Renewable)	GJ	1,444	1,068	1,649	-	-	
	Biogas	GJ	246,790.50 <sup>10</sup>	52,722.26 <sup>10</sup>	35,524.40	-	-	
	Total fuel consumption within the organization from renewable sources	GJ	1,382,900	1,034,738	180,122	-	-	

<sup>8</sup> GHG emissions associated with power delivery include emissions from electricity generated by TNB's power plants and electricity purchased from Independent Power Producers (IPPs), calculated using the Grid Emission Factor.

<sup>9</sup> Restatement due to revision of the methodology formula.

<sup>10</sup> Restatement of FY2023 based on updated figures from BE.

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Total fuel consumption within the organisation from non-renewable sources</b>								
GRI 302-1	Coal	GJ	452,842,875	366,740,751	415,080,236	-	-	
	Natural gas	GJ	194,060,333	193,211,458	150,339,667	-	-	
	Distillate fuel	GJ	1,846,890	1,387,891	2,701,689	-	-	
	Residual Fuel Oil / Medium Fuel Oil	GJ	1.94	487,250	3,427,255	-	-	
	Biodiesel (93% Fossil)	GJ	19,182	14,191	2,893	-	-	
	Total fuel consumption within the organisation from non-renewable sources	GJ	648,769,282	561,841,541	571,551,740	-	-	
<b>Raw materials consumed for electricity generation within the organisation from non-renewable sources</b>								
GRI 302-1	Coal	Tonnes	-	-	23,906,183.93	-	-	
	Natural gas	MMBtu	-	-	142,494,491.68	-	-	
	Distillate fuel	Litres	-	-	65,383,638.54	-	-	
	Residual Fuel Oil / Medium Fuel Oil	Litres	-	-	3,427,255.19	-	-	
	Biodiesel (93% Fossil)	Litres	-	-	8,501,240.87	-	-	
<b>Hydro and solar power generation</b>								
GRI 302-1	Large scale solar and hydro generation	GJ	22,665,154	25,480,236	26,287,291	-	-	
<b>Total energy purchased for consumption</b>								
GRI 302-1	Electricity purchased for consumption	GJ	1,659,736	1,408,189	1,799,569.32	-	-	
<b>Total energy sold by the organisation</b>								
GRI 302-1	Electricity sold by the organization	GJ	269,937,097	268,714,834	273,372,499	-	-	
<b>CLIMATE-RELATED PHYSICAL RISKS</b>								
S2 - 29(c)	Amount of assets or business activities vulnerable to physical risks	Number	-	-	696	-	-	Vulnerability to physical risk is defined as assets that have exposure to high physical risk
	Percentage of assets or business activities vulnerable to physical risks	%	-	-	0.55	-	-	
<b>CUSTOMER ACCOUNTS</b>								
<b>Number of Residential, Commercial, Industrial and Institutional Customer Accounts</b>								
IF-EU-000.A	<b>Residential</b>	<b>Number</b>	<b>8,910,066</b>	<b>9,143,457</b>	<b>9,368,707</b>	-	-	
G4-EU3	Peninsular Malaysia	Number	8,335,248	8,554,220	8,766,538	-	-	
	Sabah	Number	574,782	589,237	602,169	-	-	
	<b>Commercial</b>	<b>Number</b>	<b>1,796,239</b>	<b>1,832,642</b>	<b>1,862,093</b>	-	-	
	Peninsular Malaysia	Number	1,688,615	1,721,968	1,748,735	-	-	
	Sabah	Number	107,624	110,674	113,358	-	-	
	<b>Industrial</b>	<b>Number</b>	<b>36,051</b>	<b>36,572</b>	<b>36,582</b>	-	-	
	Peninsular Malaysia	Number	34,390	34,834	34,841	-	-	
	Sabah	Number	1,661	1,738	1,741	-	-	
	<b>Others</b>	<b>Number</b>	<b>110,445</b>	<b>98,658</b>	<b>112,642</b>	-	-	
	Peninsular Malaysia	Number	103,668	91,864	105,841	-	-	
	Sabah	Number	6,777	6,794	6,801	-	-	
	<b>Total</b>	<b>Number</b>	<b>10,852,801</b>	<b>11,111,329</b>	<b>11,380,024</b>	-	-	

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Total Electricity Delivered to Residential, Commercial, Industrial and Institutional Customer Accounts</b>								
IF-EU-000.B	<b>Residential</b>	<b>MWh</b>	<b>35,555,221.60</b>	<b>38,682,740.25</b>	<b>38,735,998.73</b>	-	-	
	Peninsular Malaysia	MWh	33,325,441.00	36,293,584.00	36,713,306.52	-	-	
	Sabah	MWh	2,229,780.60	2,389,156.25	2,022,692.21	-	-	
	<b>Commercial</b>	<b>MWh</b>	<b>45,092,218.50</b>	<b>48,693,783.64</b>	<b>52,385,318.11</b>	-	-	
	Peninsular Malaysia	MWh	42,402,041.00	45,807,508.91	49,945,598.93	-	-	
	Sabah	MWh	2,690,117.50	2,886,274.73	2,439,719.18	-	-	
	<b>Industrial</b>	<b>MWh</b>	<b>45,648,645.68</b>	<b>46,585,411.95</b>	<b>44,489,456.80</b>	-	-	
	Peninsular Malaysia	MWh	44,478,159.00	45,272,778.00	43,343,754.57	-	-	
	Sabah	MWh	1,170,486.68	1,312,633.95	1,145,702.23	-	-	
	<b>Others</b>	<b>MWh</b>	<b>2,572,516.45</b>	<b>2,748,318.81</b>	<b>3,409,519.28</b>	-	-	
	Peninsular Malaysia	MWh	2,493,161.00	2,673,711.00	3,347,662.43	-	-	
	Sabah	MWh	79,355.45	74,607.81	61,856.85	-	-	
	<b>Total</b>	<b>MWh</b>	<b>128,868,602.23<sup>11</sup></b>	<b>136,710,254.65<sup>11</sup></b>	<b>139,020,292.92</b>	-	-	
<b>Energy Solution Adoption by Customers</b>								
<b>Rooftop Solar (GSPARX)</b>								
N/A	Rooftop solar capacity	MWp	105	504	216	-	-	
	Total number of customers subscribed	Number	1,155	3,130	2,482	-	-	
<b>Green Electricity Tariff (GET)</b>								
N/A	Number of customer subscribed per year	Number	2,753	1,403	1,580	-	-	
N/A	Total annual consumption	MWh	4,181	2,513,000	3,935,000	-	-	
<b>Net Energy Metering (NEM) connected TNB Peninsular Grid</b>								
N/A	Cumulative customers who are producer	Number	24,664	55,831	99,729	-	-	
N/A	Total Installed Capacity	MW	970.5	1,467.5	1,900.0	-	-	
<b>Number of Customer Subscribed to myTNB</b>								
N/A	Number of customer subscribed to myTNB	Number	6,742,081	7,264,768	8,070,368	-	-	
<b>Results of Surveys Measuring Customer Satisfaction</b>								
N/A	Customer Satisfaction Index	%	88	87	90	88	90	
	Customer Experience Index	%	95	95	95	95	95	
	Complaints Resolved	%	99.7	99.5	98.1	100	100	
<b>Total Number of Substantiated Complaints Received Concerning Breaches of Customer Privacy</b>								
Bursa C8(a) [Data Privacy and Security]	Total number of customer privacy complaints	Number	0	0	0	Zero complaints	Zero complaints	
GRI 418-1								
<b>WATER MANAGEMENT</b>								
<b>WATER WITHDRAWAL</b>								
<b>Total Water Withdrawal From All Areas by Sources</b>								
IF-EU-140a.1	Total water withdrawal from all areas	ML	3,694,205	4,235,191	4,514,331	-	-	
GRI 303-3								
<b>Sources - Surface water</b>								
IF-EU-140a.1	Freshwater	ML	3,230	2,389	4,885	-	-	
GRI 303-3	Other water	ML	0	0	0	-	-	

<sup>11</sup> Updated calculated number

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Sources - Seawater</b>								
IF-EU-140a.1	Freshwater	ML	0	0	0	-	-	
GRI 303-3	Other water	ML	3,679,348	4,221,884	4,498,783	-	-	
<b>Sources - Third-party water</b>								
IF-EU-140a.1	Freshwater	ML	11,627	10,917	10,663	-	-	
GRI 303-3	Other water	ML	0	0	0	-	-	
<b>Percentage of Water Withdrawn From Location With High or Extremely High Baseline Water Stress</b>								
IF-EU-140a.1	Water withdrawal from areas with High Baseline Water Stress	%	-	-	0.004	-	-	
GRI 303-3	Water withdrawal from areas with Extremely High Baseline Water Stress	%	-	-	0	-	-	
	Freshwater Withdrawal Intensity	ML/GWh	0.146	0.149	0.206	-	-	
<b>WATER DISCHARGE</b>								
<b>Total Water Discharge to All Areas</b>								
GRI303-4	Total water discharge to all areas	ML	3,684,109	4,225,957	4,505,411	-	-	
<b>Total Water Discharge to All Areas by Category</b>								
GRI303-4	Category - Freshwater	ML	4,762	4,073 <sup>12</sup>	6,628	-	-	
	Category - Other water	ML	3,679,348	4,221,884	4,498,783	-	-	
<b>Total Water Discharge to All Areas by Destination</b>								
GRI303-4	Destination - Surface water	ML	3,230	2,389	4,885	-	-	
	Destination - Seawater	ML	3,679,348	4,221,884	4,498,783	-	-	
	Destination - Third-party water	ML	1,532	1,684	1,743	-	-	
<b>WATER CONSUMPTION</b>								
<b>Total Water Consumption From All Areas</b>								
IF-EU-140a.1	Total water consumption from all areas	ML	10,096	9,234	8,920	-	-	
Bursa C9(a) [Water]	Water Consumption Intensity	ML/GWh	0.127	0.126	0.118	-	-	15% reduction in water intensity by 2035 using 2025 baseline
GRI303-5								
<b>Percentage of Water Consumed From Location With High or Extremely High Baseline Water Stress</b>								
IF-EU-140a.1	Water consumed from areas with High Baseline Water Stress	%	-	-	1.56	-	-	
GRI 303-5	Water consumed from areas with Extremely High Baseline Water Stress	%	-	-	0	-	-	
<b>Water Management Target</b>								
IF-EU-140a.1	Percentage Reduction in water intensity	%	-	0.79	5.998	-	-	
<b>NON COMPLIANCE ASSOCIATED WITH WATER REGULATION</b>								
<b>Incidents of Non-Compliance Associated With Water Quality Permits, Standards and Regulations</b>								
IF-EU-140a.2	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Number	-	2 <sup>13</sup>	0	-	-	

<sup>12</sup> Updated calculated number<sup>13</sup> Data restated due to notice received from regulators for the financial year

PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>ENERGY AFFORDABILITY</b>								
<b>Average Retail Electric Rate for All Customers</b>								
IF-EU-240a.1	Peninsular Malaysia	sen/kWh	-	-	45.40	-	-	Base electricity tariff for Peninsular Malaysia set by Energy Commission
	Sabah	sen/kWh	-	-	31.49	-	-	
<b>Residential</b>								
IF-EU-240a.1	Peninsular Malaysia	sen/kWh	-	-	33.25	-	-	
	Sabah	sen/kWh	-	-	34.25	-	-	
<b>Non-Residential (Includes Commercial, Industrial, Agriculture, Mining and Others)</b>								
IF-EU-240a.1	Peninsular Malaysia - Non-Domestic LV	sen/kWh	-	-	51.55	-	-	
	Peninsular Malaysia - Non-Domestic MV	sen/kWh	-	-	49.00	-	-	
	Peninsular Malaysia - Non-Domestic HV	sen/kWh	-	-	49.00	-	-	
IF-EU-240a.1	Peninsular Malaysia - Non-Domestic UHV	sen/kWh	-	-	60.93	-	-	
	Sabah - Commercial	sen/kWh	-	-	32.46	-	-	
	Sabah - Industrial	sen/kWh	-	-	27.75	-	-	
<b>EFFECTIVE STAKEHOLDER ENGAGEMENT</b>								
<b>Regulatory Relationship</b>								
N/A	Regulatory Relationship Strength Index (RRSI)	%	92	94	96	>92		
<b>AIR QUALITY</b>								
<b>Significant Air Emissions</b>								
IF-EU-120a.1	Sulphur Oxides (SO <sub>x</sub> )	Metric tonnes	34,977.44	115,697.86	111,140.00	-	-	Starting in FY2024, the toxic loading value incorporates a revised methodology.
GRI 305-7								
Bursa S4(a) [Emissions - Air quality/ Pollution]	Particulate matter (PM)	Metric tonnes	6,539.63	6,347.45	6,463.00	-	-	Increased emissions due to an increased coal capacity factor.
	Nitrogen Oxides (NO <sub>x</sub> )	Metric tonnes	41,936.32 <sup>1</sup>	76,458.23	71,604.00	-	-	Starting in FY2024, the toxic loading value incorporates a revised methodology.
	Lead (Pb)	Metric tonnes	-	-	Not Applicable	-	-	-
	Mercury (Hg)	Metric tonnes	-	-	Not Detected	-	-	The concentration of mercury emitted is too small and negligible.
<b>Percentage of Pollutants Near Dense Area</b>								
IF-EU-120a.1	Sulphur Oxides (SO <sub>x</sub> )	%	-	-	100	-	-	Dense area is defined, according to the SASB standard, where area with a population of >50,000 people is considered.
	Particulate matter (PM)	%	-	-	100	-	-	
	Nitrogen Oxides (NO <sub>x</sub> )	%	-	-	100	-	-	
	Lead (Pb)	%	-	-	Not Applicable	-	-	
	Mercury (Hg)	%	-	-	Not Applicable	-	-	Near is defined, according to the SASB standard, as where emissions polluting entities are located within 49 km of a dense area

<sup>1</sup> Updated calculated number



## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Hazardous Waste Diverted From Disposal by Type</b>								
GRI 306-4	SW1: Metal and metal-bearing waste	Metric tonnes	428,915	489,705	532,148	-	-	
IF-EU150a.1	Ash	Metric tonnes	425,703	487,482	523,346	-	-	
GRI 306-4								
GRI 306-4	E-Waste	Metric tonnes	3,212	2,006	8,602	-	-	
	Others	Metric tonnes	-	217	200	-	-	
	SW2: Waste containing principally inorganic constituents	Metric tonnes	2	35	2	-	-	
	SW3: Waste containing principally organic constituents	Metric tonnes	3,970	2,393	7,642	-	-	
	SW4: Waste containing either organic or inorganic constituents	Metric tonnes	7,707	5,319	7,453	-	-	
Bursa C10(a) [Waste Management]	Total hazardous waste recycling rate	%	47.42	55.58	54.14	30% recycling rate of hazardous waste by 2025	50% recycling rate by 2030	
GRI 306-4								
<b>Non-Hazardous Waste Diverted From Disposal</b>								
Bursa C10(a) [Waste Management]	Total non-hazardous waste diverted from disposal	Metric tonnes	-	127	198	-	-	
GRI 306-4	Total non-hazardous waste recycling rate	%	-	13.25	13.18	-	-	
<b>WASTE DIRECTED TO DISPOSAL</b>								
<b>Hazardous Waste Directed to Disposal</b>								
Bursa C10(a) [Waste Management]	Total weight of hazardous waste directed to disposal	Metric tonnes	488,528	397,586	463,508	-	-	
GRI 306-5								
<b>Hazardous Waste Directed to Disposal by Type</b>								
GRI 306-5	SW1: Metal and metal-bearing waste	Metric tonnes	488,039	397,173	459,708	-	-	
	Ash	Metric tonnes	487,360	396,885	458,185	-	-	
	E-Waste	Metric tonnes	-	13	-	-	-	
	Others	Metric tonnes	679	275	1,523	-	-	
	SW2: Waste containing principally inorganic constituents	Metric tonnes	22	88	72	-	-	
	SW3: Waste containing principally organic constituents	Metric tonnes	52	138	28	-	-	
	SW4: Waste containing either organic or inorganic constituents	Metric tonnes	414	186	3,699	-	-	
<b>Non-Hazardous Waste Directed to Disposal</b>								
Bursa C10(a) [Waste Management]	Total non-hazardous waste directed to disposal	Metric tonnes	-	831	1,304	-	-	
GRI 306-5	Total waste directed to disposal	Metric tonnes	-	398,417	464,812	-	-	

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>OCCUPATION HEALTH AND SAFETY</b>								
<b>WORK RELATED INJURY</b>								
<b>Number of Fatalities as a Result of Work Related Injuries</b>								
GRI 403-9	Road Accident/Vehicle (Employees)	Number	2	0	0	-	-	
	Bitten/Stung by Animals/Wild Insects/Venomous (Employees)	Number	1	0	0	-	-	
	Drowning (Employees)	Number	0	0	1	-	-	
	Electrocuted/Flashover (Contractor)	Number	1	2	1	-	-	
	Fall from Height (Contractor)	Number	0	1	0	-	-	
	Struck by Falling Object (Contractor)	Number	0	1	0	-	-	
	Road Accident/Vehicle (Contractor)	Number	1	0	1	-	-	
<b>Number of Fatalities as a Result of Work-Related Injuries</b>								
Bursa C5(a) [Health and Safety]	Employees	Number	3	0	1	Zero fatalities	-	
	Contractors	Number	2	4	2	Zero fatalities	-	
GRI 403-9	Total (Employees and Contractor)	Number	5	4	3	Zero fatalities	-	
<b>Fatality Rate</b>								
IF-EU-320a.1	Employees	Per 1,000 workers	0.09	0.00	0.03	Zero fatalities	-	
GRI 403-9	Contractors	Per 1,000 workers	0.08	0.01	0.04	Zero fatalities	-	
<b>Number of Recordable Work-Related Injuries</b>								
GRI 403-9	Employees	Number	125	129	154	-	-	
	Contractors	Number	35	60	35	-	-	
<b>Recordable Work-Related Injuries Frequency Rate</b>								
GRI 403-9	Employees	Per million manhours	1.24	1.26	1.75	-	-	
	Contractors	Per million manhours	0.46	0.62	0.31	-	-	
<b>Total Recordable Incident Rate (TRIR)</b>								
IF-EU-320a.1	Employees	Per 1,000 workers	3.61	3.71	4.50	-	-	
	Contractors	Per 1,000 workers	1.35	1.53	0.77	-	-	
<b>Number of Hours Worked</b>								
GRI 403-9	Employees	Hours	100,963,177	102,685,789	87,826,897	-	-	
	Contractors	Hours	76,558,411	97,412,276	113,193,185	-	-	

PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>LTI Cases by Incident Type (Employees)</b>								
GRI 403-9	Road Accident/Vehicle	Number	20	35	20	-	-	
	Slip/Fall on the same level	Number	23	28	16	-	-	
	Fall of persons from heights	Number	10	4	2	-	-	
	Fall into depth	Number	0	0	2	-	-	
	Struck by Falling Objects	Number	12	4	3	-	-	
	Struck by Moving Objects	Number	0	0	2	-	-	
	Struck by Equipment	Number	5	3	12	-	-	
	Struck by Machines	Number	0	0	1	-	-	
	Bitten/Stung by Animals/Wild Insects/Venomous	Number	4	6	3	-	-	
	Electrocuted/Flashover	Number	1	4	6	-	-	
	Lifting	Number	0	0	3	-	-	
	Eye injury	Number	0	2	2	-	-	
	Contact with Chemical	Number	0	0	1	-	-	
	<b>Total (Employees)</b>	<b>Number</b>	<b>75</b>	<b>86</b>	<b>73</b>	-	-	
<b>LTI Cases by Incident Type (Contractors)</b>								
GRI 403-9	Road Accident/Vehicle	Number	6	15	3	-	-	
	Slip/Fall on the same level	Number	5	4	4	-	-	
	Fall of persons from heights	Number	0	6	0	-	-	
	Fall into depth	Number	0	0	2	-	-	
	Struck by Falling Objects	Number	4	14	1	-	-	
	Struck by Moving Objects	Number	0	0	1	-	-	
	Struck by Machines/ Equipment	Number	2	2	4	-	-	
	Bitten/Stung by Animals/Wild Insects/Venomous	Number	3	7	2	-	-	
	Electrocuted/Flashover	Number	1	3	5	-	-	
	Lifting	Number	0	0	1	-	-	
	Eye injury	Number	0	0	0	-	-	
	Contact with Hot Substances/Chemical	Number	0	1	0	-	-	
	Trapped	Number	0	0	1	-	-	
	<b>Total (Contractors)</b>	<b>Number</b>	<b>21</b>	<b>52</b>	<b>24</b>	-	-	
<b>Lost-Time Injuries Frequency Rate (LTIFR)</b>								
Bursa C5(b) [Health and Safety]	Employees	Per million manhours	0.74	0.87	0.83	-	-	
	Contractors	Per million manhours	0.27	0.53	0.21	-	-	
GRI 403-9								
<b>Number of Lost Days</b>								
GRI 403-9	Employees	Number	19,690	2,018	6,905	-	-	
	Contractors	Number	12,594	25,084	12,314	-	-	
<b>Lost Days Severity Rate</b>								
GRI 403-9	Employees	Per million manhours	195.02	19.65	78.62	-	-	
	Contractors	Per million manhours	164.50	257.50	108.79	-	-	

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Number of Near Misses</b>								
GRI 403-9	Employees	Number	23	24	21	-	-	
<b>Near Miss Frequency Rate (NMFR)</b>								
IF-EU-320a.1	Employees	Per million manhours	0.23	0.23	0.24	-	-	
<b>WORK RELATED ILL HEALTH</b>								
<b>The Number of Fatalities as a Result of Work-Related ill Health</b>								
GRI 403-10	Employees	Number	0	0	0	-	-	
	Contractors	Number	0	0	0	-	-	
<b>The Number of Cases of Recordable Work-Related ill Health for Employees</b>								
GRI 403-10	Hearing impairment caused by noise	Number	9	5	9	-	-	
	Intervertebral disc disorders	Number	1	2	1	-	-	
	Total cases for employees	Number	10	7	10	-	-	
<b>WORKERS COVERED BY OHS MANAGEMENT SYSTEM</b>								
<b>Number of Employees and Percentage of Employees Who are Covered by Occupational Health and Safety Management System</b>								
GRI 403-8	Employees	Number	34,543	34,883	34,857	-	-	
	Employees	%	100	100	100	-	-	
<b>Number of Employees and Percentage of Contractors Who are Covered by Occupational Health and Safety Management System</b>								
GRI 403-8	Contractors	Number	27,781	39,249	45,738	-	-	
	Contractors	%	100	100	100	-	-	
<b>HEALTH &amp; SAFETY TRAINING</b>								
<b>Number of Training Hours</b>								
	Employees	Number	154,204	130,413	139,852	-	-	
<b>Employees Trained on HSE Standards</b>								
Bursa C5(c) [Health and Safety]	Number of employees trained on HSE standards	Number	14,014	13,973	34,963	-	-	
	Percentage of employees trained on HSE standards	%	40.57	40.06	100.00	-	-	

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>ANTI CORRUPTION</b>								
<b>Percentage of Employees That Have Received Training on Ethics and Anti-Corruption by Employee Category</b>								
Bursa C1(a) [Anti Corruption]	<b>Total</b>	%	<b>74.48</b>	<b>100.00</b>	<b>99.78</b>	<b>100</b>	-	
	Senior Management	%	1.01	1.26	1.29	-	-	
GRI 205-2	Executive	%	17.39	27.16	27.85	-	-	
	Non-executive	%	56.09	71.58	70.64	-	-	
Bursa C1(b) [Anti Corruption]	Total number of operations assessed for risks related to corruption	Number	32	118	36	-	-	
GRI 205-1	Total percentage of operations assessed for risks related to corruption	%	97.00	100.00	97.00	100	-	36 out of 37 entities had registered their fraud and bribery risks.
<b>Confirmed Incidents of Corruption and Actions Taken</b>								
Bursa C1(c) [Anti Corruption]	Total number of confirmed incidents of corruption	Number	5	4	7	-	-	
GRI 205-3	Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	Number	5	4	7	-	-	
<b>Total Number and Percentage of Employees that the Organization's Anti-Corruption Policies and Procedures Have Been Communicated to, Broken Down by Employee Level</b>								
GRI 205-2	<b>Completed Conflict of Interest (COI)</b>							
	Senior Management	Number	362	437	448	-	-	
	Executive	Number	6,720	9,357	9,671	-	-	
	Non-executive	Number	20,856	24,661	24,606	-	-	
	Total	Number	27,938	34,455	34,725	-	-	
	Total	%	80.90	100.00	99.40	-	-	
	<b>Completed Integrity Pledge</b>							
	Senior Management	Number	350	437	448	-	-	
	Executive	Number	6,569	9,357	9,668	-	-	
	Non-executive	Number	20,711	24,661	24,820	-	-	
	Total	Number	27,630	34,455	34,936	-	-	
	Total	%	80.00	100.00	99.40	-	-	
<b>Total Number of Employees that have Received Training on Ethics and Anti-Corruption by Employee Category</b>								
GRI 205-2	<b>Total</b>	<b>Number</b>	<b>27,540</b>	<b>34,654</b>	<b>34,900</b>	-	-	
	Senior Management	Number	348	437	452	-	-	
	Executive	Number	6,470	9,412	9,740	-	-	
	Non-executive	Number	20,722	24,805	24,708	-	-	
<b>Total Number of Accused Employees by Level</b>								
-	Senior Management	Number	0	0	0	-	-	
	Executive	Number	0	0	0	-	-	
	Non-executive	Number	5	4	7	-	-	
<b>Anti-Bribery Management System (ABMS) Internal Audit</b>								
-	Number of division audited	Number	21	24	19	-	-	
	Percentage of division audited	%	100	100	100	-	-	
	Number of NCR	Number	7	12	13	-	-	
<b>Amount of Political Contribution</b>								
GRI 415-1	Total amount of political contribution	RM	0	0	0	-	-	

## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks	
<b>Total Number of Significant Instances of Non-Compliance with Laws and Regulations for which Fines Were Occurred</b>									
GRI 2-27	Environment	Number	10	4	0	-	-		
	Safety and occupational health	Number	41	25	16	-	-		
	Corruption	Number	-	-	0	-	-		
	Total	Number	51	29	16	-	-		
<b>Total Number of Significant Instances of Non-Compliance with Laws and Regulations for which Non-Monetary Sanctions Occurred</b>									
GRI 2-27	Environment	Number	7	16	19	-	-		
	Safety and occupational health	Number	41	27	29	-	-		
	Corruption	Number	-	-	0	-	-		
	Total	Number	48	43	48	-	-		
<b>Monetary Value of Significant Fines</b>									
GRI 2-27	Cost of fines, penalties or settlements in relation to corruption	RM	-	-	0	-	-		
	Monetary value of significant fines related to Health & Safety	RM	0	89,500	115,000	-	-		
	Monetary value of significant fines related to Environment	RM	20,000	8,000	0	-	-		
	Total monetary value of significant fines	RM	20,000	97,500	115,000	-	-		
<b>EMPLOYEE DEMOGRAPHIC</b>									
<b>Total Size of Workforce</b>									
GRI 2-7	TNB Group	Number	34,543	34,939	35,476	-	-		
	TNB Company	Number	26,607	26,570	26,883	-	-		
	Genco (Subsidiaries)	Number	1,256	1,646	1,839	-	-		
	Other Subsidiaries	Number	6,680	6,723	6,754	-	-		
<b>Workforce by Gender</b>									
Bursa C3(a) [Diversity]	Male	Number	27,084	27,353	27,688	-	-		
		%	78.40	78.30	78.05	-	-		
GRI 2-7	Female	Number	7,459	7,586	7,788	-	-		
		%	21.60	21.70	21.95	-	-		
<b>EMPLOYEE DIVERSITY AND EQUAL OPPORTUNITIES</b>									
<b>Workforce by Level and Gender</b>									
Bursa C3(a) [Diversity]	<b>Senior Management</b>								
	Male	Number	336	339	367	-	-		
GRI 405-1	Female	Number	120	112	139	-	-		
	Total	Number	456	451	506	-	-		
	Male	%	73.68	75.17	72.53	-	-		
	Female	%	26.32	24.83	27.47	-	-		
<b>Workforce by Level and Gender</b>									
Bursa C3(a) [Diversity]	<b>Executive</b>								
	Male	Number	5,362	5,508	5,688	-	-		
GRI 405-1	Female	Number	3,685	3,866	4,029	-	-		
	Total	Number	9,047	9,374	9,717	-	-		
	Male	%	59.27	58.76	58.54	-	-		
	Female	%	40.73	41.24	41.46	-	-		
	<b>Non-Executive</b>								
	Male	Number	21,379	21,506	21,633	-	-		
Female	Number	3,661	3,608	3,620	-	-			
Total	Number	25,040	25,114	25,253	-	-			
Male	%	85.38	85.63	85.67	-	-			
Female	%	14.62	14.37	14.33	-	-			

PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>Workforce by Age Group</b>								
Bursa C3(a) [Diversity]	<35	Number	11,238	10,493	10,106	-	-	
		%	32.53	30.00	28.49	-	-	
GRI 405-1	35 - 50	Number	19,065	20,248	21,080	-	-	
		%	55.19	58.00	59.42	-	-	
	>50	Number	4,240	4,198	4,290	-	-	
		%	12.28	12.00	12.09	-	-	
<b>Workforce by Level and Age Group</b>								
Bursa C3(a) [Diversity]	<b>Senior Management</b>							
	<35	Number	0	0	5	-	-	
GRI 405-1	35 - 50	Number	235	218	243	-	-	
	>50	Number	221	233	258	-	-	
	Total	Number	456	451	506	-	-	
	<35	%	0.00	0.00	0.99	-	-	
	35 - 50	%	51.50	48.30	48.02	-	-	
	>50	%	48.50	51.70	50.99	-	-	
	<b>Executive</b>							
	<35	Number	3,114	3,137	3,287	-	-	
	35 - 50	Number	5,150	5,400	5,520	-	-	
	>50	Number	783	837	910	-	-	
Total	Number	9,074	9,374	9,717	-	-		
<35	%	34.40	33.50	33.83	-	-		
35 - 50	%	56.90	57.60	56.81	-	-		
>50	%	8.70	8.90	9.36	-	-		
<b>Non-Executive</b>								
<35	Number	8,128	7,356	6,814	-	-		
35 - 50	Number	13,679	14,630	15,317	-	-		
>50	Number	3,233	3,128	3,122	-	-		
Total	Number	25,040	25,114	25,253	-	-		
<35	%	32.50	29.30	26.98	-	-		
35 - 50	%	54.60	58.20	60.66	-	-		
>50	%	12.90	12.50	12.66	-	-		
Total (excluding Board Members)	Number	34,543	34,939	35,476	-	-		
<b>TNB Company Board Directors by Gender</b>								
Bursa C3(b) [Diversity]	Male	Number	6	8	8	-	-	
	Female	Number	5	4	4	-	-	
GRI 405-1	Total	Number	11	12	12	-	-	
	Male	%	55.45	66.67	66.67	-	-	
	Female	%	45.45	33.33	33.33	>30 female	-	
<b>TNB Company Board Directors by Age</b>								
Bursa C3(b) [Diversity]	<50	Number	1	1	2	-	-	
	50 - 60	Number	5	5	5	-	-	
GRI 405-1	>60	Number	5	6	5	-	-	
	<50	%	9.09	8.33	16.67	-	-	
	50 - 60	%	45.45	41.67	41.67	-	-	
>60	%	45.45	50.00	41.67	-	-		
<b>Differently Abled Employees by Gender</b>								
GRI 405-1	Male	Number	23	26	26	-	-	
	Female	Number	3	5	6	-	-	
	Total	Number	26	31	32	-	-	
<b>Employee Engagement Survey</b>								
N/A	Employee Engagement Score (ESS)	%	89.0	89.7	87.0	-	-	



## PERFORMANCE TABLE

ISSB/Bursa/GRI	Indicator	Units	FY2023	FY2024	FY2025	Target FY2025	Future Target	Remarks
<b>COMMUNITY/SOCIETY</b>								
<b>Total Number of Beneficiaries of the Investment in Communities</b>								
Bursa C2(a) [Community/ Society]	Total amount invested in the community where the target beneficiaries are external to the listed issuer	RM million	99.04	63.78	101.34	-	-	
Bursa C2(b) [Community/ Society]	Beneficiaries of investment in communities	Number	6,635	79,581	713,748	-	-	
GRI 201-1								
<b>SUPPLY CHAIN MANAGEMENT</b>								
<b>Proportion of Spending on Local Suppliers</b>								
GRI 204-1	Number of local vendor	Number	3,632	3,639	3,681	-	-	
	Percentage of local suppliers	%	94.98	93.86	95.96	-	-	
	Total spend on local suppliers	RM billion	17.18	19.21	20.80	-	-	
Bursa C7(a) [Supply Chain Management]	Percentage of local suppliers	%	46.45	52.81	57.08	>35%	-	
GRI 204-1								
<b>Total Number and Percentage of Vendors to Whom the Organisation's Anti-Corruption Policies and Procedures have been Communicated</b>								
GRI 205-2	Number of vendors with signed Integrity Pacts	Number	1,550	1,385	797	-	-	
	Percentage of vendors with signed Integrity Pacts	%	59.30	38.10	20.80	-	-	
	Number of vendors with completed anti-corruption training	Number	267	1,237	1,070	-	-	
	Percentage of vendors with completed anti-corruption training	%	10.00	34.00	27.90	-	-	
<b>Confirmed Incidents of Corruption Involving Vendors</b>								
GRI 205-3	Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	Number	2	0	1	-	-	
<b>DATA PRIVACY AND SECURITY</b>								
<b>Total Number of Substantiated Complaints Received Concerning Breaches of Customer Privacy</b>								
Bursa C8(a) [Data Privacy and Security]	Total number of customer privacy complaints	Number	0	0	0	Zero complaints	Zero complaints	
GRI 418-1								

Note: For the current reporting period, our disclosure prioritises material business entities and subsidiaries. We are progressively strengthening our data collection and reporting processes to expand coverage to additional subsidiaries with lower financial materiality.

## SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB) CONTENT INDEX

Topic	Metric	Category	Unit of Measure	Code	Page Number
Activity Metrics	Number of: (1) residential, (2) commercial, and (3) industrial customers served	Quantitative	Number	IF-EU-000.A	94, 222
	Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers	Quantitative	Megawatt hours (MWh)	IF-EU-000.B	94, 223
	Length of transmission and distribution lines	Quantitative	Kilometres (km)	IF-EU-000.C	53, 218
Water Management	(1) Total water withdrawn, (2) total water consumed; percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic metres (m <sup>3</sup> ), Percentage (%)	IF-EU-140a.1	110, 111, 223, 224
	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Quantitative	Number	IF-EU-140a.2	111, 224
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	IF-EU-140a.3	98, 107
Coal Ash Management	(1) Amount of coal combustion products (CCPs) generated, (2) percentage recycled	Quantitative	Metric tonnes (t), Percentage (%)	IF-EU-150a.1	140, 141, 226, 227
Workforce Health & Safety	(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR) for (a) direct employees and (b) contract employees	Quantitative	Rate	IF-EU-320a.1	160, 162, 228, 230
Grid Resiliency	Number of incidents of non-compliance with physical or cybersecurity standards or regulations	Quantitative	Number	IF-EU-550a.1	52, 218
	(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days	Quantitative	Minutes, Number	IF-EU-550a.2	52, 218

## GRI CONTENT INDEX

GRI Standard	Disclosure	Page Number (s)
<b>General Disclosures</b>		
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	2
	2-2 Entities included in the organization's sustainability reporting	
	2-3 Reporting period, frequency and contact point	
	2-4 Restatements of information	Refer to Performance Table Section
	2-5 External assurance	TNB Integrated Annual Report 2025, 214
	2-6 Activities, value chain and other business relationships	2, 18-23, 26 - 27
	2-7 Employees	189, 191, 232, 234
	2-8 Workers who are not employees	
	2-9 Governance structure and composition	TNB Integrated Annual Report 2025, 255-271
	2-10 Nomination and selection of the highest governance body	TNB Integrated Annual Report 2025, 255-271
	2-11 Chair of the highest governance body	TNB Integrated Annual Report 2025, 228-231
	2-12 Role of the highest governance body in overseeing the management of impacts	14, 15
	2-13 Delegation of responsibility for managing impacts	14 - 17
	2-14 Role of the highest governance body in sustainability reporting	15
	2-15 Conflicts of interest	168
	2-16 Communication of critical concerns	29 - 33
	2-17 Collective knowledge of the highest governance body	TNB Integrated Annual Report 2025, 268
	2-18 Evaluation of the performance of the highest governance body	TNB Integrated Annual Report 2025, 269 - 270
	2-19 Remuneration policies	TNB Integrated Annual Report 2025, 270 - 271
	2-20 Process to determine remuneration	176 - 180
	2-21 Annual total compensation ratio	
	2-22 Statement on sustainable development strategy	8 - 13
	2-23 Policy commitments	16, 166 - 171, 176
	2-24 Embedding policy commitments	166 - 171, 176
	2-25 Processes to remediate negative impacts	176, 191, 234
	2-26 Mechanisms for seeking advice and raising concerns	166 - 171, 176
	2-27 Compliance with laws and regulations	1, 174, 232
	2-28 Membership associations	24 - 25
	2-29 Approach to stakeholder engagement	29 - 32
	2-30 Collective bargaining agreements	

## GRI CONTENT INDEX

GRI Standard	Disclosure	Page Number (s)
<b>G4- Electric Utilities Sector Disclosures</b>	EU1 Installed capacity broken down by primary energy source	73, 221
	EU2 Net energy output broken down by primary energy source	73, 74, 221
	EU3 Number of residential, industrial, institutional and commercial customer accounts	73, 74, 221, 222
	EU4 Length of above and underground transmission and distribution lines by regulatory regime	53, 73, 218, 221
<b>Material topics</b>		
<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	33
	3-2 List of material topics	33
<b>Responsible Business &amp; Financial Performance</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	164 - 174
<b>GRI 201: Economic Performance 2016</b>	201-1 Direct economic value generated and distributed	202, 235
	201-2 Financial implications and other risks and opportunities due to climate change	36 - 39
<b>Energy Transition &amp; Innovation</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	42 - 54
<b>G4- Electric Utilities Sector Disclosure</b>	EU28 Power Outage Frequency	52, 218
	EU29 Average power outage duration	52, 53, 218, 219
<b>Climate Change &amp; Emissions</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	55 - 83
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	74, 221, 222
	302-3 Energy intensity	74, 221
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	72, 220
	305-2 Energy indirect (Scope 2) GHG emissions	72, 220
	305-3 Other indirect (Scope 3) GHG emissions	72, 73, 220
	305-4 GHG emissions intensity	73, 220
	305-5 Reduction of GHG emissions	73, 220
	305-7 Nitrogen oxides (NOx), Sulphur oxides (SOx), and other significant air emissions	128, 225

GRI Standard	Disclosure	Page Number (s)
<b>Reliable Energy &amp; Fair Tariff</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	116 - 121
<b>G4- Electric Utilities Sector Disclosure</b>	EU11 Generation plant performance by regulatory regime	53, 73, 219, 221
	EU12 Transmission and distribution network losses: Electricity Transmission System:	54, 219
	EU28 Power Outage Frequency	52, 218
	EU29 Average power outage duration	52, 53, 218, 219
<b>Safety, Health &amp; Well-being</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	142 - 162
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	145
	403-2 Hazard identification, risk assessment, and incident investigation	148, 149, 155, 156, 159
	403-3 Occupational health services	150 - 152
	403-4 Worker participation, consultation, and communication on occupational health and safety	152
	403-5 Worker training on occupational health and safety	150
	403-6 Promotion of worker health	152 - 154
	403-8 Workers covered by an occupational health and safety management system	162, 230
	403-9 Work-related injuries	160 - 162, 228 - 230
	403-10 Work-related ill health	162, 230
	<b>Biodiversity &amp; Environmental Management</b>	
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	96 - 111
<b>GRI 303: Water and Effluents 2018</b>	303-1 Interactions with water as a shared resource	98 - 100
	303-2 Management of water discharge related impacts	98
	303-3 Water withdrawal	110, 223, 224
	303-4 Water discharge	110, 224
	303-5 Water consumption	111, 224

## GRI CONTENT INDEX

GRI Standard	Disclosure	Page Number (s)
<b>GRI 304: Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	108
	304-2 Significant impacts of activities, products and services on biodiversity	102 -106, 109
	304-3 Habitats protected or restored	109
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	109
<b>GRI 306: Waste 2020</b>	306-1 Waste generation and significant wasterelated impacts	129 - 139
	306-2 Management of significant waste related impacts	129 - 139
	306-3 Waste generated	140, 226
	306-4 Waste diverted from disposal	140, 141, 226, 227
	306-5 Waste directed to disposal	141, 227
<b>GRI 305: Emissions 2016</b>	305-7 Nitrogen oxides (NOx), Sulphur oxides (SOx), and other significant air emissions	128, 225
<b>Customer Experience &amp; Satisfaction</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	84 - 95
<b>GRI 418: Customer Privacy 2016</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	95, 217, 223, 235
<b>Community Development &amp; Social Impact</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	192 - 202
<b>GRI 201: Economic Performance 2016</b>	201-1 Direct economic value generated and distributed	202, 235, 238
<b>GRI 203: Indirect Economic Impacts 2016</b>	203-1 Infrastructure investments and services supported	193 - 201
<b>Sustainable &amp; Responsible Supply Chain</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	203 - 213
<b>GRI 204: Procurement Practices 2016</b>	204-1 Proportion of spending on local suppliers	213, 235

**GRI CONTENT INDEX**

<b>GRI Standard</b>	<b>Disclosure</b>	<b>Page Number (s)</b>
<b>GRI 205: Anti-Corruption 2016</b>	205-2 Communication and training about anticorruption policies and procedures	173, 174, 213, 231, 235
	205-3 Confirmed incidents of corruption and actions taken	174, 213, 231, 235
<b>GRI 415-1: Amount of political contribution</b>	415-1 Amount of political contribution	174, 235
<b>Cybersecurity Management</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	214 - 217
<b>GRI 418: Customer Privacy 2016</b>	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	95, 217, 223, 235
<b>Labour Rights &amp; Employment Culture</b>		
<b>GRI 3: Material Topics 2021</b>	3-3 Management of material topics	
<b>GRI 205: Anticorruption 2016</b>	205-1 Operations assessed for risks related to corruption	173, 231
	205-2 Communication and training about anticorruption policies and procedures	173, 174, 213, 231, 235
	205-3 Confirmed incidents of corruption and actions taken	174, 213, 231, 235
<b>GRI 401: Employment 2016</b>	401-1 New employee hires and employee turnover	191, 234
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	
	401-3 Parental leave	
<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	191, 234
	404-2 Programs for upgrading employee skills and transition assistance programs	
	404-3 Percentage of employees receiving regular performance and career development reviews	
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees	189, 190, 191, 232, 233
	405-2 Ratio of basic salary and remuneration of women to men	
<b>GRI 410: Security Practices</b>	410-1 Security personnel trained in human rights policies or procedures	191, 234

# PRESCRIBED TABLE

**Tenaga Nasional Berhad**  
 IFRS S1

Date & Time: 2026-04-16 18:09:08  
 FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Energy Reliability & Affordability	Average retail electric rate for all customers: Peninsular Malaysia	sen/kWh	45.40	-	No assurance	Base tariff set by EC
Energy Reliability & Affordability	Average retail electric rate for all customers: Sabah	sen/kWh	31.49	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Peninsular Malaysia: Residential	sen/kWh	33.25	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Sabah: Residential	sen/kWh	34.25	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Peninsular Malaysia: Non-Residential LV	sen/kWh	51.55	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Peninsular Malaysia: Non-Residential MV	sen/kWh	49.00	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Peninsular Malaysia: Non-Residential HV	sen/kWh	49.00	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Peninsular Malaysia: Non-Residential UHV	sen/kWh	60.93	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Sabah: Commercial	sen/kWh	32.46	-	No assurance	-
Energy Reliability & Affordability	Average retail electric rate for Sabah: Industrial	sen/kWh	2775	-	No assurance	-
Energy Reliability & Affordability	Total net energy output	GWh	75,373.46	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Gas	GWh	19,769.21	-	No assurance	-

# Tenaga Nasional Berhad

## IFRS S1

Date & Time: 2026-04-16\_18:09:08  
FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Coal	GWh	46,158.96	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Hydro	GWh	7,380.92	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Diesel	GWh	412.82	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Solar	GWh	1,023.61	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Biomass	GWh	15.61	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Biogas	GWh	9.90	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Wind	GWh	44,717	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Oil	GWh	10,768	-	No assurance	-
Energy Reliability & Affordability	Net energy output broken down by primary energy source: Solar Hybrid	GWh	4,758	-	No assurance	-
Air Quality Management	Significant air emissions: Sulphur Oxides (SOx)	Metric Tonnes	111,400.00	-	No assurance	Starting in FY2024, the toxic loading value incorporates a revised methodology
Air Quality Management	Significant air emissions: Particulate Matter (PM)	Metric Tonnes	6,463.00	-	No assurance	Increased emissions due to increased coal capacity factor

PRESCRIBED TABLE

Tenaga Nasional Berhad  
IFRS S1

Date & Time: 2026-04-16\_18:09:08  
FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Air Quality Management	Significant air emissions: Nitrogen Oxides (NOx)	Metric Tonnes	71,604.00	-	No assurance	Starting in FY2024, the toxic loading value incorporates a revised methodology
Air Quality Management	Significant air emissions: Lead (Pb)	Metric Tonnes	Not Applicable	-	No assurance	-
Air Quality Management	Significant air emissions: Mercury (Hg)	Metric Tonnes	Not Detected	-	No assurance	-
Air Quality Management	Percentage of pollutants near dense area: Sulphur Oxides (SOx)	Percentage	100	-	No assurance	Dense area is defined according to SASB standard where area with population >50,000 is considered. Near is defined according to SASB standard where emissions polluting entities are located within 49 km of dense area.
Air Quality Management	Percentage of pollutants near dense area: Particulate Matter (PM)	Percentage	100	-	No assurance	Dense area is defined according to SASB standard where area with population >50,000 is considered. Near is defined according to SASB standard where emissions polluting entities are located within 49 km of dense area.
Air Quality Management	Percentage of pollutants near dense area: Nitrogen Oxides (NOx)	Percentage	100	-	No assurance	Dense area is defined according to SASB standard where area with population >50,000 is considered. Near is defined according to SASB standard where emissions polluting entities are located within 49 km of dense area.

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Air Quality Management	Percentage of pollutants near dense area: Lead (Pb)	Percentage	Not Applicable	-	No assurance	Dense area is defined according to SASB standard where area with population >50,000 is considered. Near is defined according to SASB standard where emissions polluting entities are located within 49 km of dense area.
Air Quality Management	Percentage of pollutants near dense area: Mercury (Hg)	Percentage	Not Applicable	-	No assurance	Dense area is defined according to SASB standard where area with population >50,000 is considered. Near is defined according to SASB standard where emissions polluting entities are located within 49 km of dense area.
Waste Management and Coal Ash Management	Amount of coal combustion products (CCPs) generated: Fly Ash	Metric Tonnes	758,674	-	No assurance	-
Waste Management and Coal Ash Management	Amount of coal combustion products (CCPs) generated: Bottom Ash	Metric Tonnes	222,857	-	No assurance	-
Waste Management and Coal Ash Management	Percentage of coal combustion products (CCPs) recycled: Fly Ash	Percentage	64.50	-	No assurance	-
Waste Management and Coal Ash Management	Percentage of coal combustion products (CCPs) recycled: Bottom Ash	Percentage	1510	-	No assurance	-
Safety, Health and Well-being	Fatality rate: Employees	Number	0.03	Zero fatalities	No assurance	-
Safety, Health and Well-being	Fatality rate: Contractors	Number	0.04	Zero fatalities	No assurance	-
Safety, Health and Well-being	Total Recordable Incident Rate (TRIR): Employees	Per 1000 Workers	4.50	-	No assurance	-

PRESCRIBED TABLE

**Tenaga Nasional Berhad**  
 IFRS S1

Date & Time: 2026-04-16\_18:09:08  
 FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Safety, Health and Well-being	Total Recordable Incident Rate (TRIR): Contractors	Per 1000 Workers	0.77	-	No assurance	-
Safety, Health and Well-being	Near Miss Frequency Rate (NMFR): Employees	Per Million Manhours	0.24	-	No assurance	-

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Response to Climate Change	Amount of assets or business activities vulnerable to physical risks	Number	696	-	No assurance	Vulnerability to physical risk is defined as assets that have exposure to high physical risk
Response to Climate Change	Percentage of assets or business activities vulnerable to physical risks	Percentage	0.55	-	No assurance	-
GHG Emission & Energy Resource Planning	Total direct GHG emissions (Scope 1)	Million tCO <sub>2</sub> e	39.31	-	Internal	Excluding external factors that contribute to GHG emissions
GHG Emission & Energy Resource Planning	Indirect (Scope 2) GHG Emissions	Million tCO <sub>2</sub> e	0.314	1% reduction annually	Internal	-
GHG Emission & Energy Resource Planning	Other Indirect (Scope 3) GHG Emissions: Business travel	Million tCO <sub>2</sub> e	0.056	1% reduction annually	No assurance	-
GHG Emission & Energy Resource Planning	Other Indirect (Scope 3) GHG Emissions: Employee commuting	Million tCO <sub>2</sub> e	0.112	1% reduction annually	No assurance	-
GHG Emission & Energy Resource Planning	Total Scope 3 GHG emissions	Million tCO <sub>2</sub> e	0.168	-	No assurance	Total Scope 3 of Category 6 and 7
GHG Emission & Energy Resource Planning	Gross Global Scope 1 GHG Emissions: CO <sub>2</sub>	Metric Tonnes	41,135,914.05	-	No assurance	GHG emissions breakdown by types of gases is based on total emissions inclusive of external factors
GHG Emission & Energy Resource Planning	Gross Global Scope 1 GHG Emissions: CH <sub>4</sub>	Metric Tonnes	43,723	-	No assurance	GHG emissions breakdown by types of gases is based on total emissions inclusive of external factors
GHG Emission & Energy Resource Planning	Gross Global Scope 1 GHG Emissions: N <sub>2</sub> O	Metric Tonnes	819.65	-	No assurance	GHG emissions breakdown by types of gases is based on total emissions inclusive of external factors
GHG Emission & Energy Resource Planning	Gross Global Scope 1 GHG Emissions: HFCs	Metric Tonnes	1.17	-	No assurance	GHG emissions breakdown by types of gases is based on total emissions inclusive of external factors

PRESCRIBED TABLE

**Tenaga Nasional Berhad**  
 IFRS S2

Date & Time: 2026-04-16 18:09:08  
 FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
GHG Emission & Energy Resource Planning	Gross Global Scope 1 GHG Emissions: SF6	Metric Tonnes	3.73	-	No assurance	GHG emissions breakdown by types of gases is based on total emissions inclusive of external factors
GHG Emission & Energy Resource Planning	Percentage of GHG emissions covered under emissions-limiting regulation	Percentage	0	-	No assurance	None of TNB reported emissions fall within emissions limiting regulatory body
GHG Emission & Energy Resource Planning	Percentage of GHG emissions covered under emissions-reporting regulation	Percentage	0	-	No assurance	None of TNB reported emissions fall within emissions reporting regulatory body
GHG Emission & Energy Resource Planning	GHG emissions associated with power deliveries	Million tCO2e	98,679,238.61	-	No assurance	GHG emissions associated with power delivery include emissions from electricity generated by TNB's power plants and electricity purchased from Independent Power Producers, calculated using the Grid Emission Factor
GHG Emission & Energy Resource Planning	Total net energy output	GWh	75,373.46	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Gas	GWh	19,769.21	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Coal	GWh	46,158.96	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Hydro	GWh	7,380.92	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Diesel	GWh	412.82	-	No assurance	-

# Tenaga Nasional Berhad

## IFRS S2

Date & Time: 2026-04-16\_18:09:08  
FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Solar	GWh	1,023.61	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Biomass	GWh	15.61	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Biogas	GWh	9.90	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Wind	GWh	44,717	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Oil	GWh	10,768	-	No assurance	-
GHG Emission & Energy Resource Planning	Net energy output broken down by primary energy source: Solar Hybrid	GWh	4,758	-	No assurance	-
Energy Transition and Grid Resiliency	Percentage of electric load served by smart grid technology	Percentage	52.20	-	No assurance	-
Energy Transition and Grid Resiliency	System Average Interruption Duration Index (SAIDI): Peninsular Malaysia	Minutes/ Customers/ Year	46.93	≤47	No assurance	-
Energy Transition and Grid Resiliency	System Average Interruption Frequency Index (SAIFI): Peninsular Malaysia	Minutes/ Customers/ Year	0.95	-	No assurance	-
Energy Transition and Grid Resiliency	Customer Average Interruption Duration Index (CAIDI): Peninsular Malaysia	Minutes/ Customers/ Year	49.61	≤60	No assurance	-
Energy Transition and Grid Resiliency	System Average Interruption Duration Index (SAIDI): Sabah	Minutes/ Customers/ Year	18,713	≤220	No assurance	-

PRESCRIBED TABLE

**Tenaga Nasional Berhad**  
 IFRS S2

Date & Time: 2026-04-16\_18:09:08  
 FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Energy Transition and Grid Resiliency	System Average Interruption Frequency Index (SAIFI): Sabah	Minutes/Customers/Year	9.88	-	No assurance	-
Energy Transition and Grid Resiliency	Customer Average Interruption Duration Index (CAIDI): Sabah	Minutes/Customers/Year	18.94	-	No assurance	-
Energy Transition and Grid Resiliency	Number of incidents of non-compliance with physical standards and regulations	Number	0	-	No assurance	-
Energy Transition and Grid Resiliency	Number of incidents of non-compliance with cybersecurity standards and regulations	Number	0	-	No assurance	-
Energy Transition and Grid Resiliency	Total number of incidents of non-compliance with physical or cybersecurity standards or regulations	Number	0	-	No assurance	-
Energy Transition and Grid Resiliency	Total generation and transmission capacity impacted by disruption: TNB	MW	892	-	No assurance	-
Energy Transition and Grid Resiliency	Total population affected by disruption: TNB	Number	367,462	-	No assurance	-
Energy Transition and Grid Resiliency	Total generation and transmission capacity impacted by disruption: SE	MW	657	-	No assurance	-
Energy Transition and Grid Resiliency	Total population affected by disruption: SE	Number	215,180	-	No assurance	-
Energy Transition and Grid Resiliency	Length of above and underground Transmission lines by regulatory regime (TNB)	Circuit-km	26,592	-	No assurance	-

# Tenaga Nasional Berhad

## IFRS S2

Date & Time: 2026-04-16\_18:09:08  
FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Energy Transition and Grid Resiliency	Length of above and underground Distribution lines by regulatory regime (TNB)	Circuit-km	715,976	-	No assurance	-
Energy Transition and Grid Resiliency	Total wholesale electricity purchased (TNB)	GWh	133,350	-	No assurance	-
Energy Transition and Grid Resiliency	Length of above and underground Transmission lines by regulatory regime (SE)	Circuit-km	3,150	-	No assurance	-
Energy Transition and Grid Resiliency	Length of above and underground Distribution lines by regulatory regime (SE)	Circuit-km	27,252	-	No assurance	-
Energy Transition and Grid Resiliency	Total wholesale electricity purchased (SE)	GWh	6,518	-	No assurance	-
Customer Experience and Energy Efficiency	Total number of Customer Accounts: Residential	Number	9,368,707	-	No assurance	-
Customer Experience and Energy Efficiency	Number of Customer Accounts: Residential in Peninsular Malaysia	Number	8,766,538	-	No assurance	-
Customer Experience and Energy Efficiency	Number of Customer Accounts: Residential in Sabah	Number	602,169	-	No assurance	-
Customer Experience and Energy Efficiency	Total number of Customer Accounts: Commercial	Number	1,862,093	-	No assurance	-
Customer Experience and Energy Efficiency	Number of Customer Accounts: Commercial in Peninsular Malaysia	Number	1,748,735	-	No assurance	-
Customer Experience and Energy Efficiency	Number of Customer Accounts: Commercial in Sabah	Number	113,358	-	No assurance	-
Customer Experience and Energy Efficiency	Total number of Customer Accounts: Industrial	Number	36,582	-	No assurance	-

PRESCRIBED TABLE

**Tenaga Nasional Berhad**  
 IFRS S2

Date & Time: 2026-04-16\_18:09:08  
 FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Customer Experience and Energy Efficiency	Number of Customer Accounts: Industrial in Peninsular Malaysia	Number	34,841	-	No assurance	-
Customer Experience and Energy Efficiency	Number of Customer Accounts: Industrial in Sabah	Number	1,741	-	No assurance	-
Customer Experience and Energy Efficiency	Total number of Customer Accounts: Others	Number	112,642	-	No assurance	-
Customer Experience and Energy Efficiency	Number of Customer Accounts: Others in Peninsular Malaysia	Number	105,841	-	No assurance	-
Customer Experience and Energy Efficiency	Number of Customer Accounts: Others in Sabah	Number	6,801	-	No assurance	-
Customer Experience and Energy Efficiency	Total number of Customer Accounts	Number	11,380,024	-	No assurance	-
Customer Experience and Energy Efficiency	Total electricity delivered to Customer A accounts: Residential	MWh	38,735,998.73	-	No assurance	-
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Residential in Peninsular Malaysia	MWh	36,713,306.52	-	No assurance	-
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Residential in Sabah	MWh	2,022,692.21	-	No assurance	-
Customer Experience and Energy Efficiency	Total electricity delivered to Customer Accounts: Commercial	MWh	52,385,318.11	-	No assurance	-
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Commercial in Peninsular Malaysia	MWh	49,945,598.93	-	No assurance	-

# Tenaga Nasional Berhad

## IFRS S2

Date & Time: 2026-04-16\_18:09:08  
FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Commercial in Sabah	MWh	2,439,719.18	-	No assurance	-
Customer Experience and Energy Efficiency	Total electricity delivered to Customer Accounts: Industrial	MWh	44,489,456.80	-	No assurance	-
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Industrial in Peninsular Malaysia	MWh	43,343,754.57	-	No assurance	-
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Industrial in Sabah	MWh	1,145,702.23	-	No assurance	-
Customer Experience and Energy Efficiency	Total electricity delivered to Customer Accounts: Others	MWh	3,409,519.28	-	No assurance	-
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Others in Peninsular Malaysia	MWh	3,347,662.43	-	No assurance	-
Customer Experience and Energy Efficiency	Electricity delivered to Customer Accounts: Others in Sabah	MWh	61,856.85	-	No assurance	-
Customer Experience and Energy Efficiency	Total electricity delivered to Customer Accounts	MWh	139,020,292.92	-	No assurance	-
Water and Biodiversity	Total water withdrawal from all areas	ML	4,514,331	-	No assurance	-
Water and Biodiversity	Water withdrawal sources - Surface water: Freshwater	ML	4,885	-	No assurance	-
Water and Biodiversity	Water withdrawal sources - Surface water: Others	ML	0	-	No assurance	-
Water and Biodiversity	Water withdrawal sources - Seawater	ML	4,498,783	-	No assurance	-

PRESCRIBED TABLE

**Tenaga Nasional Berhad**  
 IFRS S2

Date & Time: 2026-04-16\_18:09:08  
 FYE 31/12/2025

Sustainability Matter	Metric	Measurement Unit	2025	Target	Assurance	Remarks
Water and Biodiversity	Water withdrawal sources - Third party water: Freshwater	ML	10,663	-	No assurance	-
Water and Biodiversity	Water withdrawal sources - Third party water: Others	ML	0	-	No assurance	-
Water and Biodiversity	Water withdrawal from areas with High Baseline Water Stress	Percentage	0.004	-	No assurance	-
Water and Biodiversity	Water withdrawal from areas with Extremely High Baseline Water Stress	Percentage	0	-	No assurance	-
Water and Biodiversity	Freshwater Withdrawal Intensity	ML/GWh	0.206	-	No assurance	-
Water and Biodiversity	Total water consumption from all areas	ML	8,920	-	No assurance	-
Water and Biodiversity	Water Consumption Intensity	ML	0.118	15% reduction in water intensity by 2035 using 2025 baseline	No assurance	-
Water and Biodiversity	Water consumed from areas with High Baseline Water Stress	Percentage	1.56	-	No assurance	-
Water and Biodiversity	Water consumed from areas with Extremely High Baseline Water Stress	Percentage	0	-	No assurance	-
Water and Biodiversity	Reduction in water intensity	Percentage	5.998	-	No assurance	-
Water and Biodiversity	Number of incidents of non-compliance associated with water quality permits, standards and regulations	Number	0	-	No assurance	-





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