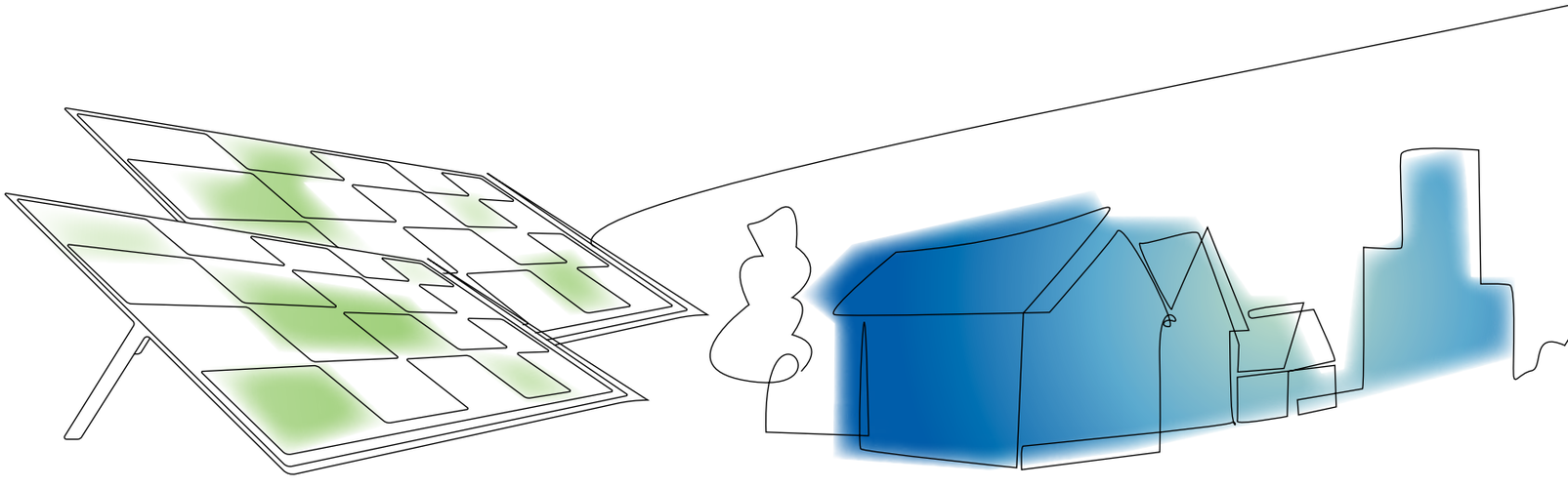
SUSTAINABILITY STATEMENT



SCOPE AND BASIS

OUTLINING THE SCOPE AND BOUNDARIES OF THIS STATEMENT

This Sustainability Statement (Statement) shares our sustainability strategies, initiatives and performance for the financial year ending 31 December 2023. Through our various efforts, TNB aspires to be a leading energy provider of sustainable energy solutions supported by our sustainability pillars - Environmental, Social and Governance (ESG).

The scope and basis of the Statement for 2023 cover the activities of the TNB Company and its subsidiaries (TNB Group) per the TNB corporate structure. This statement provides information on active subsidiaries with effective holding. This statement excludes joint ventures and vendor activities unless explicitly stated otherwise.

We endeavour to be transparent and balanced in disclosing matters deemed material. Relevant targets and three (3) years of historical key performance indicators have been established, tracked and disclosed to the best of our ability.

This Statement adheres to the Bursa Malaysia Main Market Listing Requirements (MMLR) and is aligned with the following:

Bursa Malaysia Sustainability Reporting Guide (3rd Edition)

Global Reporting Initiative (GRI) Standards and GRI Electric utilities Sector Disclosures

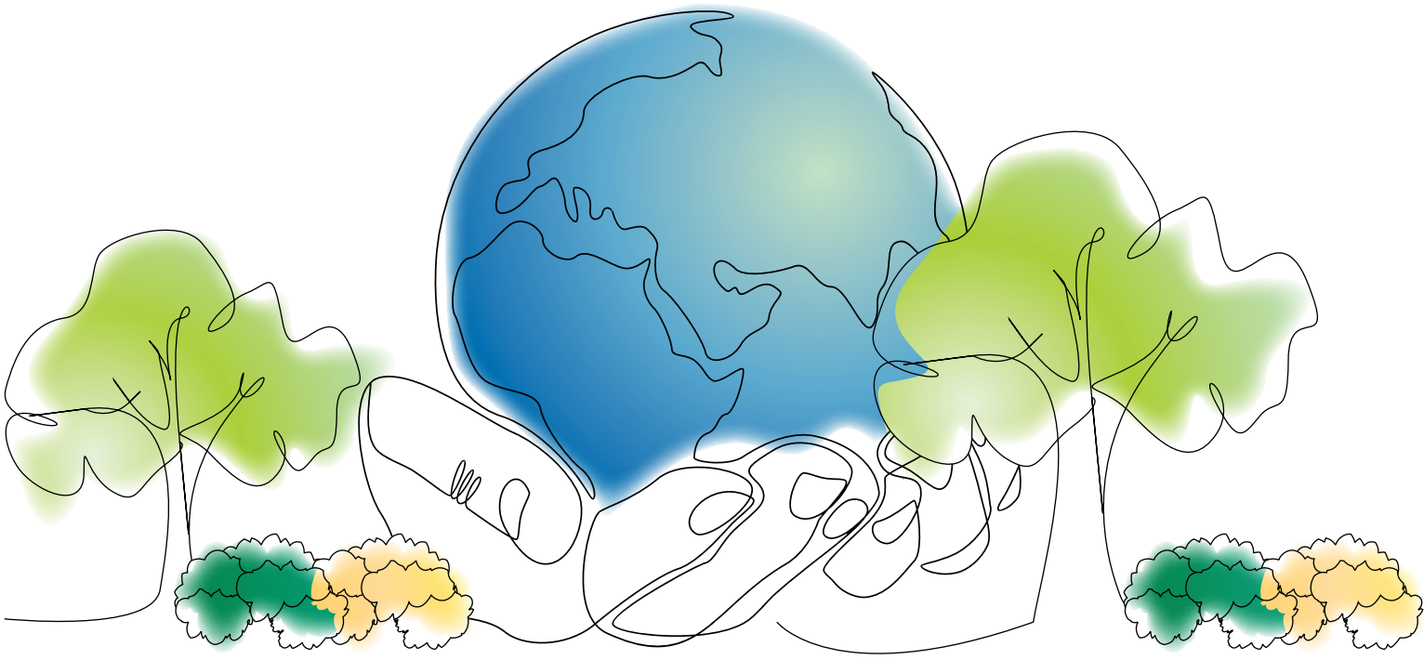
Task Force on Climate-related Financial Disclosures (TCFD) framework

United Nations Sustainable Development Goals (UN SDGs)

We are aware of and closely monitor global developments in sustainability reporting standards, such as those of the International Sustainability Standards Board (ISSB) and the Taskforce on Nature-related Financial Disclosures.

INTERNAL ASSURANCE

The Statement has been reviewed internally by the Group Internal Audit (see page 116).



SCOPE AND BASIS

OUR SUSTAINABILITY JOURNEY

Our sustainability journey towards Net Zero Emissions by 2050 focuses on ESG pillars integrated into our Reimagining TNB (RT) corporate strategy and business operations.

We have prioritised eight (8) UN SGDs to deliver sustainable value and empower our people and the wider community. We aim to achieve the objectives in each sustainability pillar by addressing matters that are material to us.

To be a leading provider of sustainable energy solutions in Malaysia and internationally

INTEGRATING ESG WITH TNB CORPORATE STRATEGY & OPERATIONS

Sustainability Pillars	Reimagining TNB 2.0
Environment Minimising our environmental impact and optimising utilisation of natural resources wherever we operate	**Deliver Clean Generation** Outlines our strategies about renewable and low-carbon sources of energy as stakeholders gravitate towards decarbonisation to mitigate climate change
Social Developing long-term and meaningful relationships with our customers, employees, and communities	**Develop Energy Transition Network** Envisions the Develop Energy Transition Network as being fully automated and digitalised, supporting bi-directional flow in a decentralised system that empowers self-generation and greater energy efficiency among consumers
Governance Reinforcing ethical business practices and a forward-looking culture	**Dynamic Energy Solutions** Relates to our commitment to providing a reliable electricity supply and becoming a customer-centric organisation which offers a meaningful customer experience by meeting all our customers' energy-related needs along with the best service delivery
	Drive Regulatory Evolution Demonstrates how we protect the interests of all relevant stakeholders - from producers to end users - to ensure the sustainability of the system

The TNB Energy Transition (ET) Plan, an extension of the RT, strengthens our sustainability journey by focusing on three (3) strategic pillars supported by critical enablers in shifting from a fossil-based energy mix to greener energy sources. These initiatives cut across the electricity value chain, from transitioning power generation to cleaner sources, enhancing the Develop Energy Transition Network, enabling more green solutions and facilitating consumer participation in the energy transition, including digitalisation and electrification.

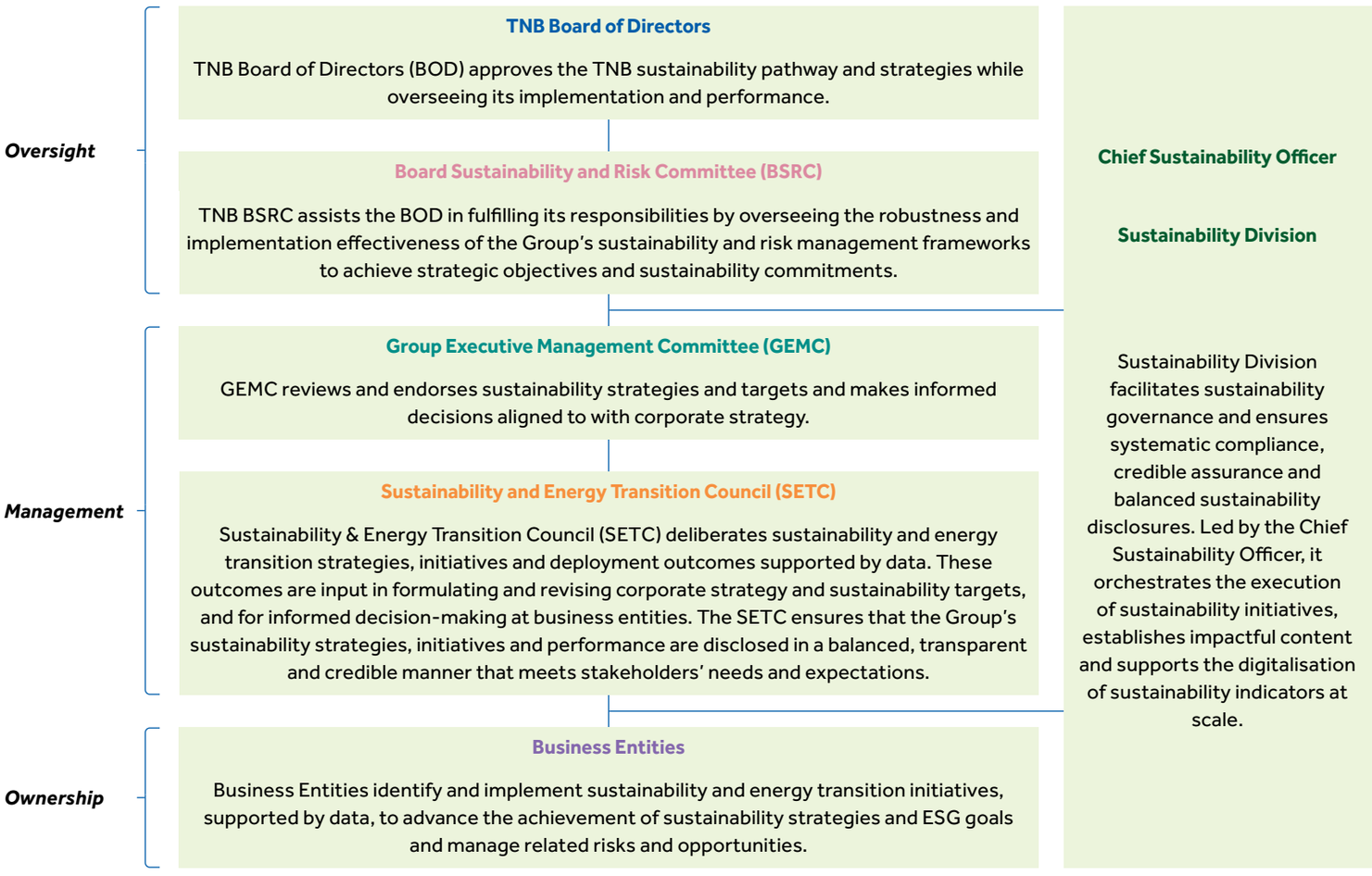
Energy Sources	Energy Vector	Energy Usage
Deliver Clean Generation	**Develop Energy Transition Network**	**Dynamic Energy Solutions**
• Renewable Capacity Growth • Carbon Management • Coal Generation Capacity Reduction	• Smart Grid • Hydrogen • Energy Storage	• Electrification • Energy Efficiency • Prosumers • Digital platforms

SUSTAINABILITY GOVERNANCE

SPEARHEADING OUR SUSTAINABILITY AGENDA THROUGH STRENGTHENED GOVERNANCE STRUCTURE

A strong sustainability governance and leadership structure is vital to spearhead our sustainability agenda and provide us with clear and definitive guidance to achieve our net zero aspirations. Our sustainability governance forms a part of the TNB Governance Framework that 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 implementation of sustainability strategies and initiatives at all levels.

TNB Sustainability Governance Structure



A key development to strengthen the TNB Sustainability Governance Structure is the formation of the BSRC, which has taken effect on 25 August 2023. Our BOD continues to demonstrate its commitment towards our sustainability agenda by expanding the oversight scope of the TNB Board Risk Committee to include sustainability; with that, the Board Risk Committee was renamed BSRC with enhanced terms of reference. The BSRC remains dedicated to overseeing the effective implementation of sustainability initiatives with robust risk management to address exposures and harness opportunities and to ensure strategic integration of sustainability into operations and decision-making.

To further enhance the deployment of our sustainability strategies, the BOD approved the formation of the Sustainability Division, which our first Chief Sustainability Officer has led since June 2023. The primary function of the Sustainability Division is to ensure the effective deployment of our sustainability strategies to meet targets and to strengthen sustainability governance across the Group. The division engages, facilitates, and advises the Business Entities on their day-to-day implementation of sustainability and energy transition initiatives.

Cross reference with the BSRC membership and TOR in the IAR under the Corporate Governance section, Principle A Board Leadership & Effectiveness

SUSTAINABILITY GOVERNANCE

The SETC, led by the President/Chief Executive Officer (CEO), continues to play its role in steering the development of sustainability and energy transition strategies and policies, and its implementation as well as providing oversight and input on opportunities and risk exposures. In addition to TNB Top Management, who are SETC members, selected future leaders are also active members to ensure the long-term continuity of our sustainability and energy transition agenda.

The key functions of the SETC are:

- Define sustainability targets and commitments that align with and support the overarching TNB business strategy.
- Shape energy transition outcomes that foster growth, create value, and proactively address sustainability challenges, including climate-related risks.
- Deliberate prioritised initiatives based on the TNB Materiality Matrix and Sustainability Deployment Blueprint and endorse the allocation and utilisation of resources.
- Steer sustainability performance and progress against target.
- Streamline data governance for timely and balanced sustainability disclosure.
- Oversee stakeholder management and engagement that meets stakeholders' needs and expectations.

FY2023 ESG KPIs for TNB Top Management

In 2023, sustainability-linked Key Performance Indicators (KPIs) were further enhanced and embedded within the Board and senior management's performance evaluation scorecard to drive group-wide accountability in steering our sustainability performance. Sustainability performance objectives relating to the ESG pillars are tied to the President/CEO and Top Management KPIs, as shown below:

	KPI	CEO	CFO	MD GENCO	CGO	CDNO	CReO	CNeO	CSVO	CSO	CRSMO	CPeO	CIO	CPO	CGBSO	CoSec	CRO	CIDO	CIA
	Overall TNB ESG Rating Score	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Environment	**Renewable Energy Growth & Opportunities**	✓		✓			✓	✓											
Environment	**Carbon Emission Rating/Score**			✓															
Environment	**Battery Storage (Grid)**				✓														
Environment	**Data Centre Power Usage Effectiveness**												✓						
Social	**Lost-Time Injury Frequency Rate (LTIFR)**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Social	**Energy Literacy**										✓								
Social	**Human Capital Development Rating/Score**											✓							
Governance	**Integrity Health Index**	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Governance	**Corporate Governance Rating/Score**		✓													✓			✓
Governance	**Corporate Behaviour Rating/Score**													✓				✓	
Governance	**ESG Risk Profiling**																✓		

Cross reference with the remuneration policies for Board and Top Management in the IAR under the Corporate Governance section, Principle A Board Leadership & Effectiveness.

MATERIALITY ASSESSMENT

OUR SUSTAINABILITY AGENDA IS FOCUSED ON WHAT MATTERS TO OUR STAKEHOLDERS

An essential aspect of our sustainability agenda involves understanding how to create value for our key stakeholders, maintaining open communication and keeping them informed and updated. Stakeholder engagement helps us to determine our material sustainability matters and prioritise them based on their significance. By engaging with stakeholders continuously, we can monitor changes in stakeholder expectations and adapt our strategies and practices accordingly to ensure that our actions align with their needs and expectations.

CUSTOMERS

Residential and non-residential segments encompass business customers in the commercial and industrial sectors, such as Government, Large Businesses, and Micro, Small, and Medium Enterprise (MSMEs).

Engagement Plaftorm

- One Stop Centres *(Kedai Tenaga)*
- Call centre
- myTNB mobile application and online portal
- Customer surveys
- Social platform activities
- Roadshows
- Campaigns
- One-to-one engagements
- E-mail

Areas of Interest or Concern

- New technologies (implementation of the smart meters and their offerings, smart solutions, solar solutions and platform solutions)
- Customer experience and service delivery
- Accessible, affordable and reliable supply of electricity
- Regulated and non-regulated innovative solutions
- Customer education on energy literacy and renewable energy
- Customer take-up rates on green/sustainable solutions
- Matters related to Personal Data Protection Act (PDPA) compliance

Our Response

- Customer Experience and Satisfaction, pages 87-89
- Reliable Energy and Fair Tariffs, pages 77-78
- Energy Transition and Innovation, pages 68-71
- Cybersecurity Management, pages 100-101

EMPLOYEES

TNB Group has 34,543 full-time employees (contractors excluded).

Engagement Plaftorm

- Townhall sessions
- *Turun padang*, brown-bag sessions and other outreach programmes
- Online portal (intranet), newsletters, emails and digital boards
- Employee survey
- One-to-one engagements
- Social platform activities
- Corporate Social Responsibility (CSR)
- Webinars

Areas of Interest or Concern

- Performance, rewards, and benefits
- Health and safety
- Employee well-being and workplace culture
- Talent and skills development
- Employee satisfaction
- TNB strategies and initiatives

Our Response

- Employment Culture, pages 102-106
- Safety, Health and Well-being, pages 79-81
- Community Development and Human Rights, pages 90-94

MATERIALITY ASSESSMENT

OUR SUSTAINABILITY AGENDA IS FOCUSED ON WHAT MATTERS TO OUR STAKEHOLDERS

Legend: All the time | Ongoing | As needed | Quarterly | Annually | Biannually

GOVERNMENT AND REGULATORS

The Malaysian Federal and State Governments, parliamentarians, municipal councils and regulators.

Engagement Plaftorm

- Meetings and briefings
- Site visits
- Round table sessions
- One-to-one engagements
- Outreach programmes
- Summits/conferences
- Feedback Sessions

Areas of Interest or Concern

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

Our Response

- Responsible Business and Financial Performance, pages 65-67
- Reliable Energy and Fair Tariffs, pages 77-78
- Cybersecurity Management, pages 100-101
- Climate Change and Emission, pages 72-76
- Energy Transition and Innovation, pages 68-71
- Community Development and Human Rights, pages 90-94

INVESTORS

Institutional and retail investors, analysts and potential investors with interest.

Engagement Plaftorm

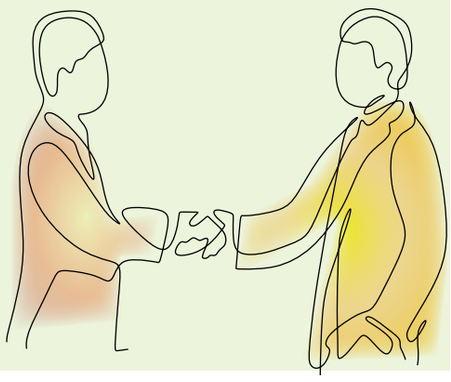
- Quarterly and Full Year Financial Results disclosures
- One-to-one engagement/group meetings with the investment community
- Investor conferences and Non-Deal Roadshows
- Annual General Meeting
- TNB corporate website's Investor Relations section
- Bursa filings and Press Releases
- Annual Integrated Report and Sustainability Reports
- Email updates to investment community

Areas of Interest or Concern

- Business strategy and performance
- Regulatory risk due to high fuel cost environment
- ESG and Energy Transition Plan
- Financial sustainability and returns
- Growth catalyst

Our Response

- All TNB Material Matters, pages 65-106



MATERIALITY ASSESSMENT

OUR SUSTAINABILITY AGENDA IS FOCUSED ON WHAT MATTERS TO OUR STAKEHOLDERS

TRADE UNIONS & ASSOCIATIONS

Three (3) registered unions and two (2) workers associations covering all categories of employees.

Engagement Plaftorm

- Joint Consultative Council (JCC)
- Negotiations for Collective Agreements (CA)
- Syndication and engagements

Areas of Interest or Concern

- Mitigation & resolution of issues
- Employee health and well-being
- Engage employees on company's strategies and initiatives
- Impact of new policies or policy revision to employees.

Our Response

- Safety, Health and Well-being, pages 79-81
- Employment Culture, pages 102-106

COMMUNITIES

Local communities in or near areas where we operate, including those affected by our operations.

Engagement Plaftorm

- Outreach programmes
- CSR programmes
- Townhall sessions
- Dialogue sessions
- Sporting events

Areas of Interest or Concern

- Public facilities and basic infrastructure
- Full compliance with legal and regulatory requirements
- Coordination of drill and crisis management
- Energy literacy
- Accessible and reliable supply of electricity
- Efficiency of service

Our Response

- Community Development and Human Rights, pages 90-94
- Employment Culture, pages 102-106

Our Stakeholder Engagement Approach: Strategic alignment with Government agenda and future-proof policies and regulations.

The above table is to be cross referenced with the IAR Corporate Governance section, Principle C Integrity in Corporate Reporting and Meaningful Relationship with Stakeholders.

MATERIALITY ASSESSMENT

OUR SUSTAINABILITY AGENDA IS FOCUSED ON WHAT MATTERS TO OUR STAKEHOLDERS

Legend: All the time | Ongoing | As needed | Quarterly | Annually | Biannually

NON-GOVERNMENTAL ORGANISATIONS (NGOs) & ASSOCIATIONS

Consumer associations, think tank groups, environmental groups, chambers of commerce and international associations, for example the Heads of ASEAN Power Utilities/Authorities (HAPUA) and Association of the Electricity Supply Industry of East Asia and Western Pacific (AESIEAP).

Engagement Plaftorm

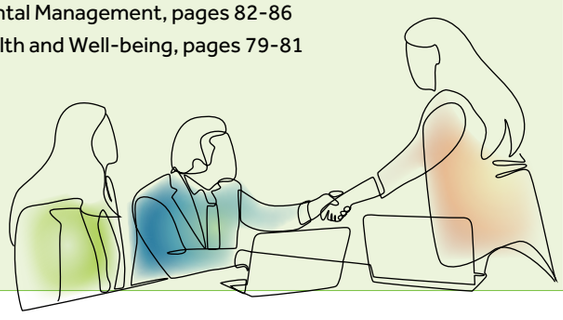
- One-to-one engagements
- Outreach programmes
- Seminars
- Collaboration sessions
- Social media
- Meetings and knowledge sharing sessions

Areas of Interest or Concern

- Affordable tariff
- Innovation in technology and RE
- Quality of service
- Supply reliability
- Current and planned ESG efforts
- Energy literacy
- Environment and Occupational Safety and Health
- Compliance with legal and regulatory requirements

Our Response

- Reliable Energy and Fair Tariffs, pages 77-78
- Energy Transition and Innovation, pages 68-71
- Environmental Management, pages 82-86
- Safety, Health and Well-being, pages 79-81



Develop the capability of our people and communities to inculcate a high performing culture and increase the level of energy literacy.

VENDORS

We have 3,848 active contractors and suppliers.

Engagement Plaftorm

- Engagement sessions with suppliers and contractors
- Road Tour Dialogues
- Vendor Training and Awareness
- Joint Operations Centre

Areas of Interest or Concern

- Industry support for business growth through technology and solutions
- Training and capability development
- Potential health and safety impacts
- Procurement processes
- Fraud and bribery awareness
- New business opportunities and future developments.

Our Response

- Sustainable and Responsible Supply Chain, pages 95-99
- Responsible Business and Financial Performance, pages 65-67
- Safety, Health and Well-being, pages 79-81

Resolve issues and create excellent engagement experiences with all key stakeholders.

MATERIALITY ASSESSMENT

TNB MATERIALITY ASSESSMENT

With the above in mind, our sustainability agenda focuses on material ESG matters outlined in our materiality matrix. We have a comprehensive materiality assessment every two (2) years; the last was in FY2022. This assessment allows us to stay ahead of emerging trends, changing stakeholder expectations, and other operational challenges. In 2023, we carried out a limited-scale materiality review.

We based the materiality assessment process on the following three (3) phases, as guided by the Bursa Sustainability Reporting Guide (3rd Edition):

Identification 1

- Considering TNB's business strategy (Reimagining TNB and TNB ET Plan) and strategic Risks.
- Gap assessment input from:
  - o Stakeholder groups
  - o ESG Pathway to 'A' and Beyond project team
  - o External benchmark

Prioritisation 2

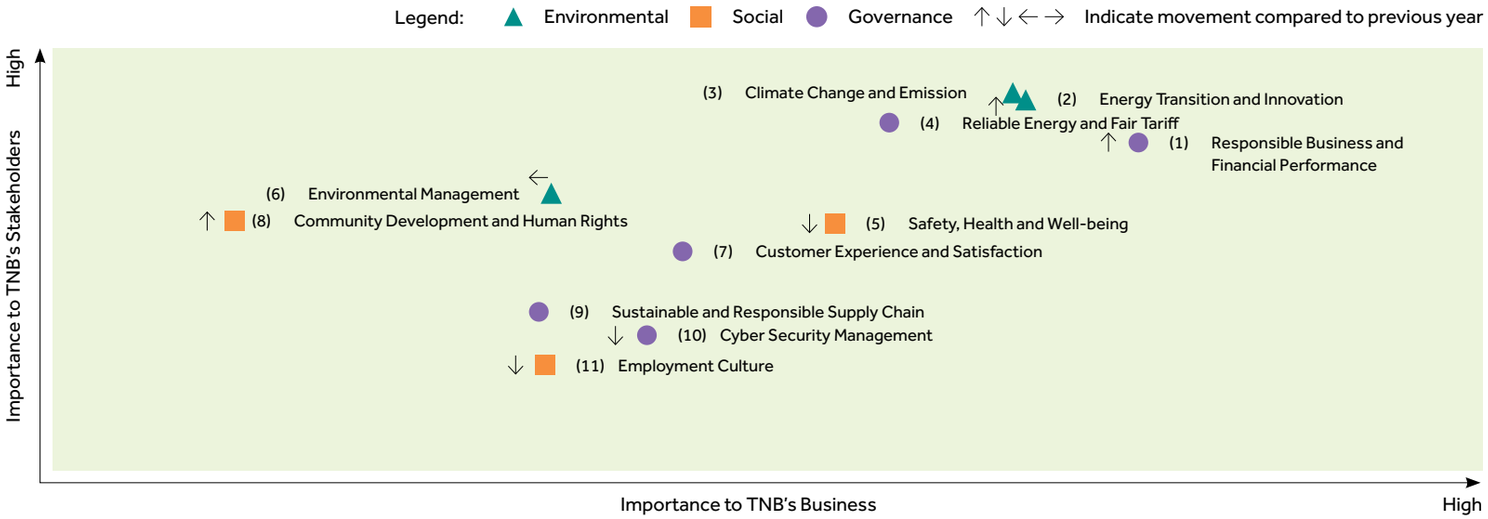
- Obtain feedback from identified personnel from business entities, overseeing and directly engaging with external or internal stakeholder groups to prioritise the relative importance of material matters from the perspective of stakeholder groups and their impact on TNB.
- Review the prioritisation of the material matters in the matrix.

Validation 3

- Deliberation and validation by SETC of the reviewed TNB Materiality Matrix.
- Approval by the TNB BOD of the reviewed TNB Materiality Matrix.

As a result, the eleven (11) material matters for FY2023 are depicted in the materiality matrix below.

TNB MATERIALITY MATTERS 2023



The following is a summary of critical updates to the TNB Materiality Matrix FY2023 as compared to FY2022:

- *Matters related to "Customer Experience and Satisfaction", previously disclosed as a sub-topic in "Responsible Business and Financial Performance", are now a separate material matter highlighting increasing customer expectations towards accelerating energy transition and energy efficiency.*
- *"Energy Transition and Innovation" and "Climate Change and Emission" remain key priorities for stakeholders and TNB.*
- *"Environmental Management" has shifted to a slightly lower priority for TNB. Environmental matters relating to emissions, water, and waste form part of our energy transition, as well as climate change material matters and strategy.*
- *"Responsible Business and Financial Performance" has shifted to a higher priority, reflecting our strategy and focus on responsibly balancing the energy trilemma.*
- *"Community Development and Human Rights" has increased in priority for stakeholders, reflecting their interest in TNB's management of a just energy transition across the value chain, particularly regarding human rights.*
- *Prioritisation for "Cybersecurity Management", "Safety, Health and Well-being" and "Employment Culture" have lowered, reflecting stakeholders' confidence of the outcome in our ongoing initiatives.*
- *The material matter related to the supply chain has been refined to "Sustainable and Responsible (added) Supply Chain", emphasising the importance of sustainable and responsible practices across the entire supply chain.*

Our revised Materiality Matrix renews our focus on material matters, which forms the basis of our Sustainability Statement. The respective indicators facilitate the monitoring and measurement of our sustainability performance.

Cross reference with the Sustainability Performance Table in the Sustainability Statement that includes linkages of performance to UN SDGs.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

MM 1

Responsible Business and Financial Performance

We are committed to responsible business practices while maintaining solid financial performance. Our goal is to ensure long-term resiliency by leveraging our core operations and new opportunities to grow in a sustainable manner, sharing the benefits with our shareholders. Our corporate governance structure complies with the Malaysian Code on Corporate Governance (MCCG) 2021 to effectively facilitate our business operations.

Underpinned by a strong governance structure, the Board of Directors (BOD) and Management play active roles in making informed decisions to secure a sustainable and leading position in the energy business while giving value to stakeholders and providing stable financial returns to our shareholders. TNB continues to honour our dividend policy that provides stable and sustainable dividends to shareholders while maintaining an efficient capital structure that is sufficient to cater for business prospects and capital requirements for our growth and expansion strategies.

Refer to Corporate Governance on page 119 and Financial Statements on page 196 in the IAR.

MANAGEMENT APPROACH

TNB Code of Business Ethics (COBE)

The BOD is guided by a high standard of ethical conduct in accordance with the COBE for Company Directors and employees as per the MCCG requirements. This is to ensure compliance with laws and regulations, sound employment practices, confidentiality and privacy. It also includes provisions on conflicts of interest, giving and accepting business courtesies and the protection and proper use of TNB's assets and resources. The COBE also defines the general principles of business integrity in how TNB relates to its shareholders, employees, customers, suppliers and the communities in which it operates. All employees are expected to conduct business in accordance with the applicable laws, rules and regulations and in a manner that enhances and protects the reputation of TNB.

TNB Corporate Integrity Management System (TCIMS)

The TCIMS was established in 2017 to drive an integrity-based culture and a high level of compliance with local and international anti-bribery standards. The objectives of the TCIMS are to:

1. Elevate TNB to international standards of integrity
2. Mitigate the risk of misconduct and corruption
3. Improve Company integrity culture

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

The TCIMS consists of four (4) key policies:

Anti-Bribery Management System and Risk Assessment

In 2017, TNB was one of the first public listed corporations on Bursa to embark on the ISO 37001:2016 Anti-Bribery Management System (ABMS) certification. We have incorporated international standards of preventing bribery into our strategic decision-making at the BOD and Management levels as well as into day-to-day business operations.

We audit and conduct fraud risk assessments for continuous improvement:

ABMS Audit & Fraud Risk Assessments	Financial Year				Total
	FY2020	FY2021	FY2022	FY2023	
No. of ABMS Certification/ Recertification Audits by SIRIM				2	
No. of ABMS Internal Audits (Division/Department)	22	16	20	21	78
No. of ABMS Internal Audits (Subsidiary)	N/A	N/A	N/A	5	5
No. of Fraud & and Bribery Risk Assessments (Division/Department)	21	21	21	21	84
No. of Fraud and& Bribery Risk Assessments (Subsidiary)	16	16	16	16	64

We work closely with the Malaysian Anti-Corruption Commission (MACC) to keep abreast of integrity and anti-corruption developments and requirements. In line with this, we have implemented the mandated Organisational Anti-Corruption Plan (OACP), which serves as the basis for anti-corruption measures or initiatives at the Company level, addressing governance issues and weaknesses to prevent corruption and integrity violations.

We have developed the annual Integrity Training and Communication Plan (TCP) to address areas of improvement identified through the annual Integrity Health Index (IHI) survey and to strengthen integrity culture. The TCP's scope includes all levels of employees, contractors and vendors, including programmes/seminars for the BOD. The TCP's progress is reported to the Board Integrity Committee (BIC) quarterly. Furthermore, the training programmes under the TCP are part of fulfilling the TRUST requirements under Section 17A of the MACC Act 2009.

The following integrity programmes were conducted in 2023:

Training Programme	No. of Programmes	No. of Participants
Board of Directors	1	8
Top Management		
i. Integrity e-learning	1	14
ii. Ethics Seminar	1	14
Permanent and Contract Employees		
i. Integrity e-learning	1	27,526 (Permanent Employees: 25,574 Contracted Employees: 1,952)
ii. Integrity Awareness & Engagements at Business Entities	69	9,142
iii. Joint Programme with MACC	5	628 (Employees: 552; Vendors/Contractors: 76)
iv. ISO 37001:2016 Anti Bribery Management System Internal Auditor Training	2	105
Active Vendors & Suppliers (e-learning & webinar):	2	3,739 (e-learning: 3,548 & webinar: 191)

To fortify an integrity culture across the Group, a total of 28,602 employees completed the annual online Integrity Pledge as a commitment to acting against corruption. Employees also declare their Conflict of Interest status annually, as well as when a conflict arises. In 2023, the number of declarations was 28,594. Our vendors are required to sign the Integrity Pact for each piece of work awarded to them as a commitment to acting against corruption.

OUR PERFORMANCE

Bursa Malaysia Indicators

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Anti-Corruption*							
1	Percentage of employees who received training on anti-corruption by employee category	C1 (a)	%	-	14,238 reported as No. of employees	74.48	100
	• Senior Management		%	-	-	1.01	
	• Executive		%	-	-	17.39	
	• Non-Executive		%	-	-	56.09	
2	Percentage of operations assessed for corruption-related risks	C1 (b)	%	-	-	97.00	100
3	Confirmed incidents of corruption and action taken	C1 (c)	Number	5	1	5	Zero incidents of corruption

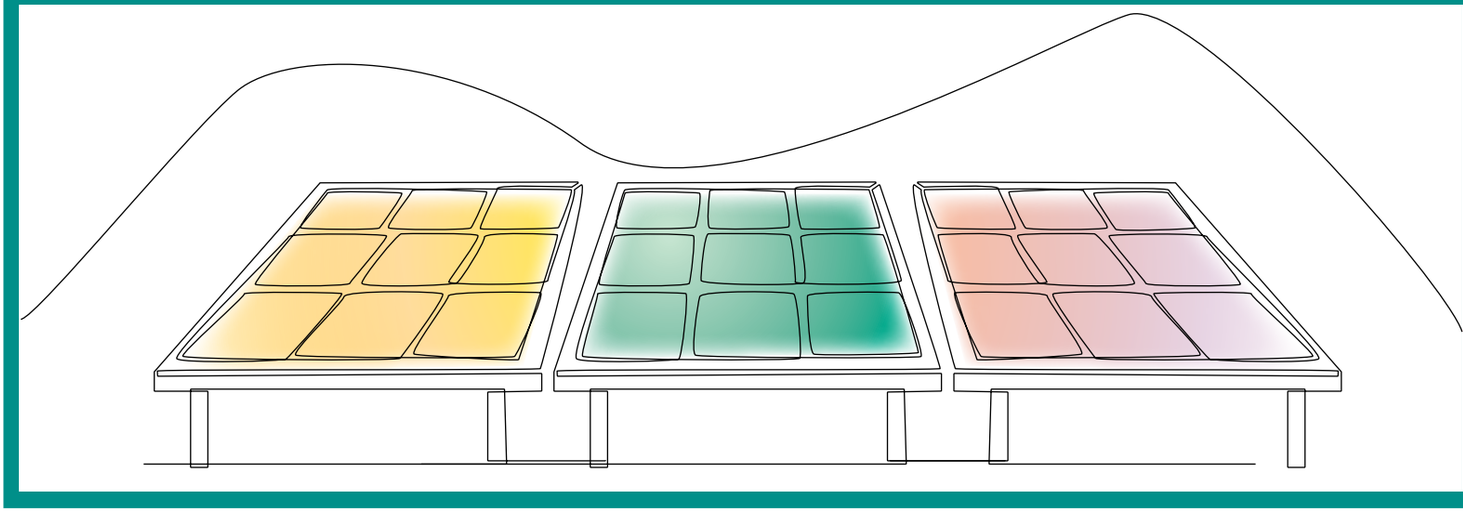
* *Past years' data has been reported for the number of employees. FY2023 data has been reported aligning with the GRI 205-1 Anti-corruption definition.*

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

MM 2

Energy Transition and Innovation

Malaysia's energy transition (ET) efforts to achieve Net Zero by 2050 will shift the nation's generation mix from fossil fuel-driven energy to renewable and green energy. Despite the push to increase renewable energy (RE) capacity, natural gas will continue to play a pivotal role in Malaysia's energy landscape as the nation moves towards a low-carbon economy.



The government and TNB have made a clear commitment that there will be no new build-up of greenfield coal plants. Nevertheless, the role of coal in the short- to medium-term is critical to allow diversification of the energy mix and ensure security of supply. Higher RE integration (especially solar) into the national grid requires timely investment to enable a smart and flexible grid system. On the demand side, electrification and energy efficiency continue to significantly contribute towards the nation's energy transition journey.

In line with the above, the TNB ET Plan comprises three (3) strategic pillars with key enablers in shifting from a fossil-based energy mix to greener energy sources. These initiatives align with our Reimagining TNB (RT) implementation that cuts across the electricity value chain, from transitioning power generation to Deliver Clean Generation and enhancing the Develop Energy Transition Network to enable more green solutions, to Dynamic Energy Solutions by enhancing customer experiences through digitalisation and electrification. TNB actively invests in and develops innovative solutions to expedite our ET plan.

TNB's ET journey is further strengthened with our active participation in the National Energy Transition Roadmap (NETR), which aims to reduce the nation's carbon footprint. Three (3) of TNB's ET projects have been adopted under two (2) of the NETR's flagship catalyst initiatives, namely solar park and hybrid hydro floating solar PV under the RE Zone initiative and co-firing of hydrogen and ammonia under the Hydrogen for Power initiative.

MANAGEMENT APPROACH

Energy Sources

Deliver Clean Generation

- Renewable Capacity Growth
- Carbon Management
- Coal Generation Capacity Reduction

Energy Vector

Develop Energy Transition Network

- Smart Grid
- Hydrogen
- Energy Storage

Energy Usage

Dynamic Energy Solutions

- Electrification
- Energy Efficiency
- Prosumers
- Digital platforms

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Energy Sources

For more information on energy sources, refer to the narrative in MM3 (Climate Change and Emissions) on pages 72-76.

Energy Vector

The energy transition, marked by a shift from conventional fossil fuel-based energy sources to cleaner and more sustainable alternatives, significantly impacts electrical grids. Distributed energy resources (DERs) such as rooftop solar panels play a pivotal role in creating a more decentralised energy landscape.

Unlike the traditional one-way flow of energy from power plants to consumers through the transmission and distribution grid, this decentralisation introduces a bidirectional flow of electricity. Consumers now increasingly become prosumers, actively participating in both electricity production and consumption. The management of these dynamic energy flows necessitates the implementation of smart grids and Advanced Metering Infrastructure (AMI).

In 2023, the Grid Division and Distribution Network Division invested over RM2.9 billion and RM5 billion of capital expenditure, respectively, in securing, maintaining and modernising our national grid. The highlights of our smart grid initiatives include the facilitation of RE penetration into the system, expanding AMI and real-time network monitoring and control. Additionally, in 2023, we enhanced our efforts in realising the ASEAN Power Grid aspiration by forming strategic partnerships with ASEAN Member States in the region.

Facilitation of RE Penetration

The development of Large Scale Solar (LSS) is thriving, with the current operational installed capacity of 473MW in the Distribution network and 1,340MW in the Grid network. TNB's physical grid infrastructure has the capacity to support up to 12,000MW without significant need for upgrades, assuming that the introduction of solar power follows the planned phases and allocations accordingly.

To promote the growth of LSS, our primary focus is on improving grid flexibility while ensuring system stability. To facilitate the integration of DERs by developers and stakeholders, we have collaborated with the Sustainable Energy Development Authority Malaysia (SEDA) to develop a Distributed Generation Hosting Capacity map. This initiative aims to identify available DER connection points and capacities at the medium voltage level (33kV and 11kV).

Through this map, accessible via a Geographic Information System (GIS) platform, both internal and external users can easily access a comprehensive list of substations with hosting capacity. This streamlined process simplifies the connection of RE sources to the grid and supports effective RE planning efforts.

TNB has also undertaken a pilot project to develop battery energy storage to reinforce grid resilience for RE integration via interconnection, called *Projek Rintis Sistem Penstoran Bateri*.

Advanced Metering Infrastructure (AMI)

The AMI plays a foundational role in managing a complex energy value chain and facilitates energy transition and customer empowerment through network visibility. Since the AMI project deployment, 3,549,489 smart meters have been installed, mainly in the Klang Valley, Melaka, Kedah and Penang. In 2023, an additional 873,740 smart meters were installed, exceeding our target of 600,000 units. TNB is mandated to roll out AMI and smart meters to more than 9 million Ordinary Power Customers (OPC) in Peninsular Malaysia through year 2027 and beyond.

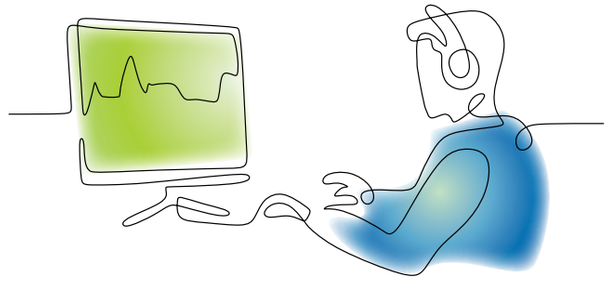
Customers with smart meters can gain insights into their energy consumption through half-hourly energy usage analysis. The granular information provided by smart meters benefits our customers and empowers our operations to pinpoint grid issues and understand consumer behaviours for more effective service delivery. By providing access to this information through the myTNB mobile app and myTNB Portal, customers acquire the ability to optimise their energy consumption, leading to reduced costs and minimised environmental impacts.

Network Monitoring and Control

Key efforts to enhance real-time network monitoring and control include Distribution Automation and voltage and reactive power management.

Distribution Automation (DA)

The DA Project facilitates automated network control and expedites rapid supply restoration. The project's objective is to progressively install DA systems in 41% of Peninsular Malaysia's total substations by the end of 2024, 64% by the end of 2027, and 84% by the end of 2030. In 2023 alone, the DA Project successfully installed and commissioned 4,002 substations that serve approximately 2.6 million customers. This brings our total DA installations since 2014 to approximately 28,340 distribution substations, covering 34% of Peninsular Malaysia's total distribution stations. Notably, we have observed an average 20% reduction in restoration time for unplanned outages, with outages typically restored within 15 minutes on average.



SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Voltage and Reactive Power Management

Under the ongoing initiative to enhance voltage and reactive power management of the distribution network, we successfully installed and commissioned a total of 120MVAr under the Volt-VAR Optimisation Project in 2023, resulting in a loss reduction of 480,000kWh.

Enhancing the Interconnected ASEAN Power Grid

Cross-border interconnections play a vital role in advancing ASEAN's ET and achieving decarbonisation goals. The establishment of the ASEAN Power Grid is poised to bolster regional grid stability and security while enabling resource-sharing and facilitating RE expansion across Member States. In 2023, Electricity Generating Authority of Thailand (EGAT) and TNB established an in-house Joint Working Committee (JWC) to undertake a feasibility study on enhancing the interconnection capacity between Peninsular Malaysia and Thailand. This study, completed in August 2023, explored potential technologies and designs, evaluated power system dynamics, analysed interconnection operations and maintenance, and conducted cost-benefit assessments. The aim was to harness mutual resources and develop the necessary regional infrastructure to promote RE adoption.

Several Memorandums of Understanding (MOU) have been signed with ASEAN nations, namely Indonesia, Thailand and Singapore, to foster collaboration in interconnection projects. Ongoing feasibility studies are being conducted to establish new cross-border electricity interconnections, linking Peninsular Malaysia with Sumatra in Indonesia, as well as developing a second interconnection link to Singapore.

Energy Storage

Among the ten (10) flagship catalyst projects in the NETR is the implementation of *Projek Rintis Sistem Penstoran Bateri*, a Battery Energy Storage System (BESS) to support the 70% RE capacity target by 2050. In 2023, the Grid Division conducted a feasibility study of potential sites for a large-scale BESS flagship project. This pilot BESS, with an energy capacity of 400MWh, will be implemented by TNB, operated by the Grid System Operator and regulated by the Energy Commission. It is expected to commence in 2025.

Energy Usage

Consumers play a key role in a successful energy transition. In 2023, we took significant strides in contributing towards a low-mobility ecosystem, enabling RE adoption by customers and empowering customers through digitalised lifestyles. We further embarked on two (2) differentiated solutions for data centre customers in the form of the Greenlane Pathway for a One-Stop Centre and broadband solutions for targeted groups.

Electrification of Mobility

In spurring the development of a low-mobility ecosystem, TNB has committed RM90 million to accelerate the electric vehicle (EV) adoption rate in Malaysia over a duration of three (3) years (2022-2024). In 2023, we deployed EV charging stations along Peninsular Malaysia's highways and trunk roads to facilitate long-distance customer travel throughout Peninsular Malaysia.

TNB Electron DC/AC Charging Station Location	Total Charge Points
6 DC charge points along PLUS Highway	**14 DC charge points** **18 AC charge points**
2 DC charge points at AEON Big Wangsa Maju	
6 DC charge point at TNB Bangsar for JFM	
18 AC charge points at TNB Platinum	

TNB Electron Tapah

TNB Electron Paka

TNB Electron Ayer Keroh

We participate as a charging point operator (CPO) through TNBX Sdn. Bhd. (TNBX), equipment and charging manufacturer through Tenaga Switchgear Sdn. Bhd. (TSG) and EV training hub through TNB Integrated Learning Solution (ILSAS).

In 2023, we electrified 108 vehicles as part of our effort to replace 30% of our fleet with EVs by 2030. A majority of these vehicles are Operational Electric Vehicles comprising pickup trucks, vans and passenger vehicles, as part of our initiative to analyse the advantages and limitations of using EVs in TNB Operations.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Enabling RE Adoption by Customers

Rooftop Solar Prosumers

We continue to grow our self-generation solar solutions under the Net Energy Metering (NEM) and Supply Agreement for Renewable Energy (SARE) schemes through TNB's wholly-owned subsidiary, GSPARX. To date, GSPARX has registered a total of 951 domestic/residential customers, bringing the total capacity to 8.25MW. Meanwhile, for the commercial, industrial and government segments, GSPARX registers a total capacity of 116.61MWp from 204 customers, a substantial increase from 81MWp in 2020.

Green Electricity Tariff (GET)

With the implementation of the GET since 2022, customers can purchase a low-carbon electricity supply without having to install their own solar rooftop or other RE installations. The RE resources for the GET Programme are generated by solar power plants under the LSS Programme, hydropower stations and any other qualified RE plants approved by the Energy Commission. Customers enrolled in the GET Programme receive the Malaysia Renewable Energy Certificate (mREC) at the end of each calendar year. TNB continues to provide platforms to facilitate customer enrolment. In 2023, a total of 4.452 million GET blocks were subscribed by 2,753 customers.

Customer Empowerment through Digitalised Lifestyles

Our customers play a critical role in supporting the energy transition by making smart choices and participating in various RE and Energy Efficiency (EE) programmes. With more than 3.5 million successful installations of smart meters by 2023 and 6.4 million myTNB app adoptions, customers are able to experience the benefits of near real-time energy consumption monitoring and budget management. Through myTNB, customers who transitioned from electronic meters to smart meters can actively monitor their electricity usage and energy consumption in real-time - a crucial step towards energy efficiency management.

For more information on energy efficiency, refer to the narrative in MM3 (Climate Change and Emissions) pages 75-76.

Differentiated Solutions for Targeted Customers

Green Lane Pathway and Strategic Offerings for Malaysia's Data Centre Market

In 2023, we established the Green Lane Pathway to facilitate the smooth setup of data centres in Malaysia. Data centres can now be connected three (3) times faster than the normal connection time, reducing the implementation period from 36 to 48 months to just 12 months. A One-Stop Centre (OSC) for data centre investment with dedicated support services is available. We also offer around-the-clock maintenance assistance and tailored solutions to meet the requirements of each data centre.

Broadband Solutions for Targeted Groups

Through Allo Technology Sdn. Bhd. (Allo), TNB has ventured into internet fibre networks and city broadband solutions to support the implementation of smart home solutions with high-speed broadband. In 2023, several partnerships with key industry players, such as Johor Land Berhad, Celcom Axiata Berhad and IDEAL Industrial Holdings, were forged to continue expanding our footprint in the digital sector.

Allo has progressed in suburban and rural area offerings through the *Rahmah Package* in collaboration with the Ministry of Communications and Digital. This package offers fixed broadband Internet access at a lower price to targeted groups like the B40 group, persons with disabilities (OKU), senior citizens, Malaysian Armed Forces (ATM) veterans, Royal Malaysian Police (PDRM) retirees and Maritime Enforcement Agency Malaysia (APMM) retirees.

OUR PERFORMANCE

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
1	RE Capacity*	-	MW	3,499	3,780 (9.8% growth)	4,375 (16% growth)	Target: 8.3GW by 2025**
2	Number of smart meters (AMI) installed	-	Number	945,625	838,830	873,740	9 million by 2029
3	Number of EV charging point	-	Number	-	3 DC 3 AC	14 DC 18 AC	134 DC by 2024 10-20% by 2030

* *Total includes solar capacity at MWp.*

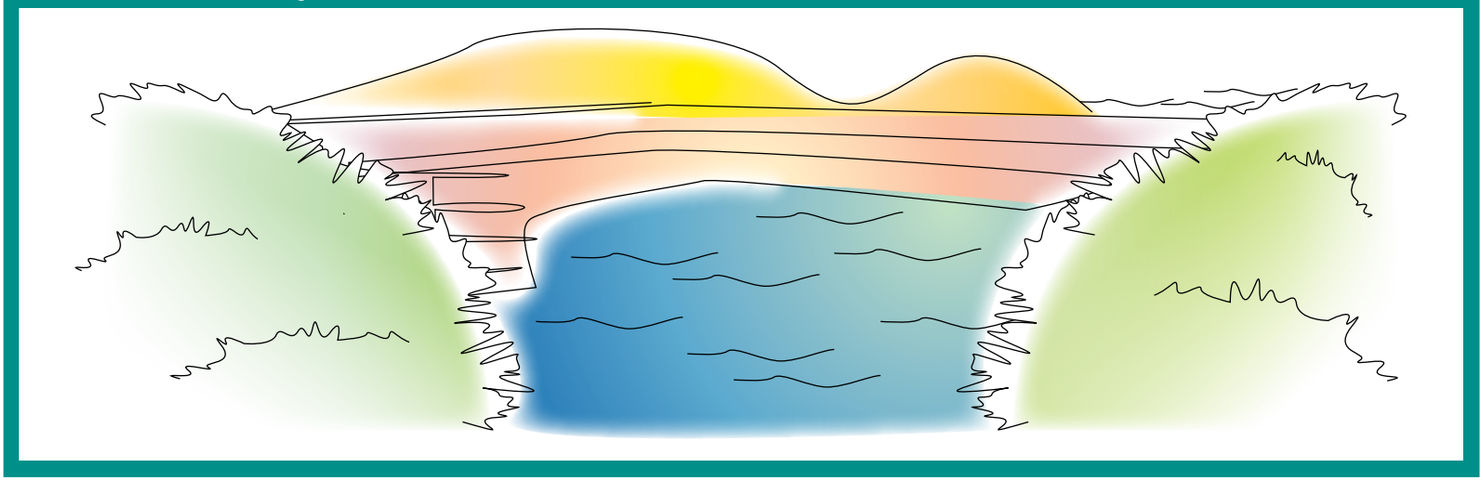
** *Target includes assets under operation/construction/development.*

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

MM 3

Climate Change and Emissions

We support Malaysia's commitment to the Paris Agreement and seek to mitigate our GHG emissions and environmental impacts, as well as adapting to climate-related risks which that includes raising global temperatures, increasing of seawater levels, floods and heat waves and soil movement. We acknowledge the impacts we have on climate change, as well as the threats of climate change to our existing infrastructure and business sustainability.



At the core of TNB's Energy Transition Plan lies the ambition to achieve Net Zero Emissions and coal-free plant operations by 2050. The transition to Net Zero Emissions began with an interim target of a 35% reduction in emissions intensity by 2035 before achieving Net Zero Emissions by 2050. The delivery of these targets is anchored on our business operations, national policies and international frameworks on climate change that are aligned with supporting Malaysia's ambitious goals of achieving carbon neutrality by 2050.

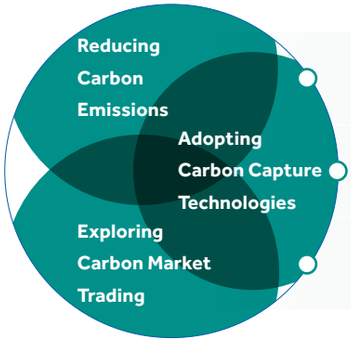
MANAGEMENT APPROACH

Climate Change

We continue to assess and mitigate physical and transition risks, guided by the Representative Concentrating Pathways (RCP) scenarios from the Intergovernmental Panel on Climate Change (IPCC) and scenarios proposed by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).

We also identify business opportunities associated with transitioning to a low-carbon economy and implement adaptation plans for floods, heatwaves, soil movement and coastal inundation.

The TNB ET Plan outlines our long-term strategy to address climate change and emissions, as below:



We aim to reduce emissions, strategising for:

Cleaner generation capacity	Increased RE capacity	Enhanced operational efficiency across the value chain

We have identified Carbon Capture & Storage (CCS) technology as a potential solution in decarbonising the power sector. We continue to play an active role in researching and advancing this technology

For the remaining hard-to-abate emissions, we are exploring the development of carbon credits with nature-based carbon trading

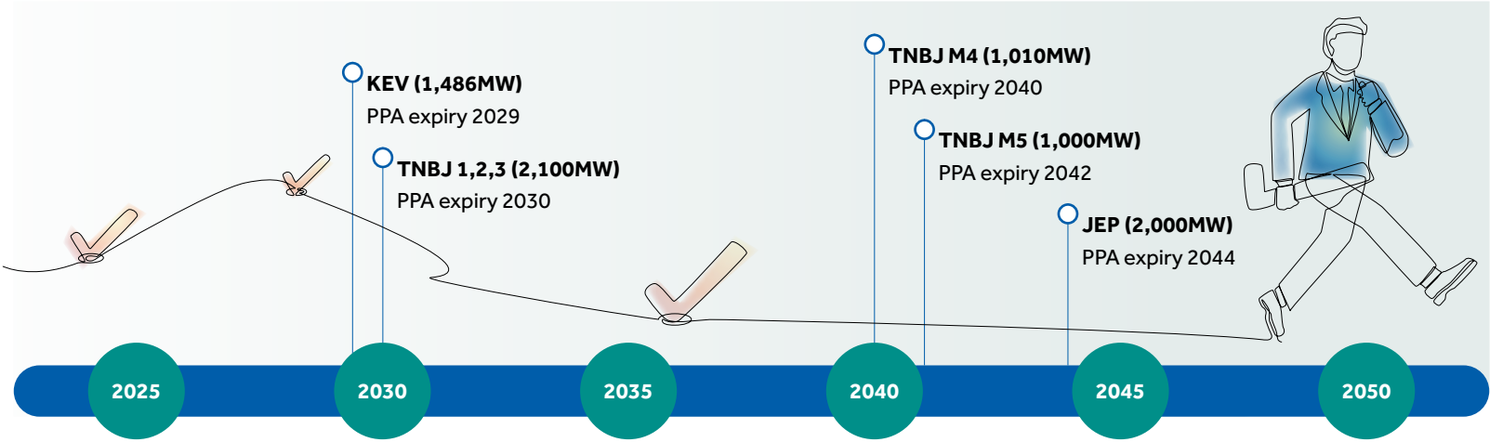
The transition to decarbonisation focuses on the progressive expansion of low-carbon generation assets and the phasing down of our coal-fired generation capacity in stages. This is further supported by our approach to efficiently operating thermal power plant operations and investing in innovative solutions research and development to scale up efficient energy generation and carbon capture technologies.

Reducing Carbon Emissions

Cleaner Generation Capacity

Reducing Coal Generation Capacity

In 2021, TNB committed to no longer investing in greenfield coal plants. We are exploring the viability of retiring coal-fired power plants earlier than planned, subject to shareholders' agreement and approvals from the relevant authorities and regulators. The GHG Scope 1 emissions of our coal power plants is expected to reduce as these plants retire according to the respective Power Purchase Agreements (PPAs), as follows:



Our strategy to repower our coal power plants with cleaner technologies is focused on Kapar Energy Ventures (KEV), TNB Janamanjung (TNBJ) and Jimah East Power (JEP). This repowering exercise, which utilises existing sites and infrastructure to generate electricity utilising cleaner technologies such as hydrogen-ready gas power plants and gas power plants equipped with CCS technologies, is expected to reduce our GHG Scope 1 emissions.

Ammonia-Biomass Co-firing at Coal Power Plants

Our partnerships with Mitsui & Co. and Chugoku are making substantial strides in advancing the feasibility study for co-firing coal with biomass and ammonia at the Jimah East Power Plant. Following the successful completion of the feasibility study at Phase 1, we started Phase 2, with an in-depth analysis of technical behaviours through a small-scale project of actual co-firing with varying concentrations of ammonia and biomass. This phase involved conducting a Front-End Engineering Design (FEED) study for this small-scale co-firing project.

A significant milestone was achieved with the successful execution of the EFB-Pellet Trial Burn for Unit 2 (1,000MW) in September 2023. Notably, this marked the first Biomass Mix-Firing test for a Supercritical type of boiler in Malaysia. The trial run demonstrated positive outcomes, showcasing observable reductions in emissions. Moving forward, further studies and actual tests will be conducted to assess the technical behaviour under increased concentrations, e.g. 3% to 5% of biomass and ammonia. This ongoing exploration is integral to refining and optimising our co-firing strategies for enhanced sustainability.

Hydrogen Fuel: Shifting Away from Fossil-Based Energy

We continue to accelerate the transition from a fossil-fuel-based energy mix to low-carbon energy sources such as hydrogen. Through strategic collaboration with IHI Corporation, we are working together to reduce carbon emissions in identified TNB coal-fired power plants. Our goal is to explore the practicality of using hydrogen in co-firing and conducting tests with different hydrogen concentrations to achieve targeted emissions reductions. This collaboration focuses on both technical and commercial aspects, paving the way for a more sustainable energy future.

Partnership with PETRONAS

TNB has signed an MOU with PETRONAS, aiming to expedite the decarbonisation process in the energy sector. Building upon the initial TNB-PETRONAS MOU signed on 19 August 2022, the parties are advancing towards a Definitive Agreement for a Joint Feasibility Study focused on green hydrogen as a clean energy alternative. The collaborative study aims to provide a comprehensive understanding of commercial viability, considering factors such as the levelised cost of electricity (LCOE), levelised cost of hydrogen (LCOH), levelised cost of storage (LCOS), and the sales price of hydrogen (H_2).

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Increasing Renewable Energy (RE) Capacity

In 2023, TNB's RE capacity reached 4,375MW, a growth of 16% compared to FY2022 (3,780MW). The announcement of 10 flagship projects under the National Energy Transition Roadmap (NETR) in August 2023 has strengthened TNB's RE position in the market.

Project	Commercial Operation Date (COD)	Capacity	Status	Estimated Annual Emission Avoidance
TNB Bukit Selambau Dua (TBSS2) solar, Malaysia	2023	50MWac (75MWp)	Achieved COD on 21 December 2023	0.08 million tCO_2e/year
Solar Greenfield Development, United Kingdom	2024	102MWp	Targeted to meet COD in Q3 2024	0.05 million tCO_2e/year
Hybrid Hydro-Solar Project (HHFS)	2025-2040	2424MW	Feasibility study for Phase 1 completed	3.4 million tCO_2e/year
5 x 100MWac (150MWp) Solar Park	2026	750MWp	Under Development	0.11 million tCO_2e/year
1 x 30MWac (45MWp), 2 x 9MWac (13.5MWp) CGPP*	2025	48MWac (72MWp)	Financial Investment Decision (FID) stage	0.07 million tCO_2e/year

* *At effective shareholding*

Corporate Green Power Programme (CGPP)

In 2023, TNB successfully secured 90MW (135MWp) in solar generation through the government-launched CGPP. This capacity includes both wholly owned 30MW/45MWp and joint venture (2 x 30MW / 2 x 45MWp) facilities. Upon commissioning, the annual emissions avoidance is estimated at 70,646 tCO_2e per year.

National Energy Transition Roadmap

TNB is championing two (2) RE projects and is a partner in one RE project, as follows:

i. Championing Green Capacity Growth through Hybrid Hydro-Solar Project (HHFS)

The development of around 2,424MW HHFS in four (4) phases at TNB hydro dam reservoirs will increase TNB's RE capacity.

Phase	Capacity (MW)	Projected COD	Estimated Annual Emissions Avoidance ($KtCO_2e$)
1	230	2025	319
2	470	2028	652
3	800	2035	1,110
4	924	2040	1,282
Total	**2,424**		**3,364**

Phase 1 of the project will be developed by TNB Genco at the Temengor and Chenderoh hydro reservoirs. Feasibility studies will also be conducted for the Terengganu and Kelantan schemes for the remaining project phases. Upon the commissioning of all phases, the annual emissions avoidance is estimated at 3.364 million tCO_2e.

ii. Championing 5 x 100MW (150MWp) Centralised Solar Parks in Partnership with SMEs

The centralised parks, co-developed by TNB in partnership with SMEs, will consist of a 100MW (150MWp) deployment per site across five (5) sites in several states. For each 100MW park, the emissions avoidance is estimated at 110 $KtCO_2e$ per year for 25 years.

iii. Partnership with Sime Darby for Rooftop Solar

TNB has entered into a partnership with Sime Darby Property for the construction of 4.5MW solar capacity across 450 homes in the City of Elmina, a township in Sungai Buloh, Selangor, and Bandar Bukit Raja, Klang, Selangor. Carbon avoidance is estimated at 7,992 tCO_2e per year.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Enhance Operational Efficiency Across the Value Chain

Sustaining Power Plant Efficiency

Thermal power plants can significantly curtail carbon emissions by optimising their fuel consumption, ensuring that less fuel is employed to produce an equivalent amount of electricity. The efficiency of a thermal power plant is typically measured using a parameter called "heat rate" or "thermal efficiency". A lower heat rate indicates a more efficient power plant because it means that less fuel is required to produce each unit of electricity.

We continue to monitor and implement initiatives to improve thermal power plant efficiency, aiming to sustain the efficiency at its designed level. Our efforts have produced a commendable enhancement of the efficiency (heat rate) of thermal power plants in the TNB portfolio, registering an improvement of +1.12% from 2022 to 2023. The resulting carbon emissions reduction was 301 KtCO_2e.

Managing GHG Emissions from Substations

We aim to lower our sulphur hexafluoride (SF6) fugitive emissions from our substations through recycling at our SF6 Gas Recycling and Reconditioning Centre and reusing the gas in these assets to promote a circular economy.

Improving Energy Efficiency in Our TNB Office Buildings

In 2023, a campaign called "Drip by Drip, Watt by Watt" was launched by the TNB Global Business Solutions (TGBS) Division with the aim of promoting energy efficiency by reducing electricity and water consumption and involving 109 TNB-owned offices. Since the campaign's start in July 2023, the usage of electricity and water has been captured and monitored monthly.

As at 31 December 2023, our total electricity consumption reduction was 870,063kWh, which translated to a GHG Scope 2 emissions reduction estimated at 659 tCO_2e.

Energy Efficiency through Greater Customer Empowerment

With the myTNB mobile app, customers with smart meters are further empowered to embrace an energy efficiency lifestyle through interactive energy usage alerts, specifically through the Energy Budget feature. This innovative tool is part of a suite of digital solutions designed to guide customers towards a more sustainable and energy efficiency way of living.

From its inception, the Energy Budget programme has achieved amazing traction, with over 287,625 customers enrolling for its benefits. Together, they have made substantial strides towards a cleaner, greener world, contributing to a collective reduction of 114,953,188kWh. This collective effort is equivalent to erasing 80,711 tCO_2e of carbon emissions. Moreover, the aggregated cost savings resulting from energy efficiency management amounted to a total of RM50,537,412.

Adopting Carbon Capture Technologies

In 2023, TNB embarked on exploring the feasibility of CCS through a joint study with PETRONAS to capture, transport and store carbon deep underground in geological formations. We continue to work with industry partners, academic institutions and government agencies to accelerate our ET Plan and achieve our milestones towards Net Zero by 2050.

Nature-Based Solution Through Tree-planting Programme

In 2023, we continued our tree-planting initiative through the My Brighter Green Programme to commemorate TNB's 74th anniversary. This initiative was undertaken across TNB Group, through which we planted 6% more of the targeted 74,000 trees at 42 designated areas across Malaysia (equivalent to 842.28 tCO_2e carbon sequestered).

Exploring Carbon Market Trading

TNB is exploring carbon offsetting for the remaining hard-to-abate emissions with nature-based carbon trading options. This solution is still at the development stage as we strive to implement carbon reduction initiatives first and aggressively invest in promoting RE options and innovative technological solutions before pursuing the carbon trading market option.

OUR PERFORMANCE

We have established climate-related targets as milestones in realising our net zero aspiration:

Revenue from coal generation plants does not exceed **25%** **of our total revenue starting in 2021**	**RE capacity** **8.3GW*** **by 2025, with accelerated RE investment by 2050**	**Reduction of Scope 1 emissions intensity** **35%** **by 2035 and Net Zero Emissions by 2050, compared to base year 2020**	**Reduction of coal capacity** **50%** **by 2035 and 100% by 2050, compared to base year 2020**

* *for assets under operation/construction/development.*

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Our carbon management performance is linked to GHG emissions that are calculated in alignment with the following guidelines and methodologies:

1. The GHG emissions methodologies applied were the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, GHG Protocol and Clean Development Mechanism (CDM)
2. The consolidation of data was based on an equity share approach
3. The GHG emissions were assessed annually for TNB operations in Peninsular Malaysia only

In 2023, we assessed our Scope 3 indirect emissions under Categories 6 (Business Travel) and 7 (Employee Commuting), focusing on our operations in Peninsular Malaysia. Leveraging current data availability and the capacity of TNB's internal monitoring systems, we employed a distance-travelled-based methodology for reporting GHG Scope 3 emissions in Categories 6 (Business Travel) and 7 (Employee Commuting). This approach was aligned with the GHG Protocol Scope 3 Calculation Guidance (2013).

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Energy Consumption							
1	Total energy consumption*	C4 (a)	GJ	840,944 MWh	863,463 MWh	442,044,404	Started in FY2023 as baseline
	Energy consumption intensity	-	GJ/MWh	-	-	6.72	Energy intensity maintained at < 6
GHG Emissions							
2	Scope 1 GHG Emissions	C11 (a)	mil tCO_2e	39.77	38.58	38.92	38.62 mil tCO_2e - 1% reduction from base year 2020
3	Scope 2 GHG Emissions	C11 (b)	mil tCO_2e	0.28	0.32	0.39	0.218 mil tCO_2e - 1% reduction from base year 2020.
4	Scope 3 Category 6: Business Travel	C11 (c)	tCO_2e	-	-	36,853.49	Started in FY2023 as baseline.
5	Scope 3 Category 7: Employee Commuting	C11 (c)	tCO_2e	-	-	63,027.75	Started in FY2023 as baseline.
6	Scope 1 Emission Intensity	-	tCO_2e/MWh	0.54	0.5488	0.5465	5% reduction compared to baseline of FY2020.

* *Past years' data has been reported according to the amount of energy consumption at TNB buildings (MWh). FY2023 data has been reported to align with GRI 302-1: Energy consumption within the organisation, which utilised the formula:*

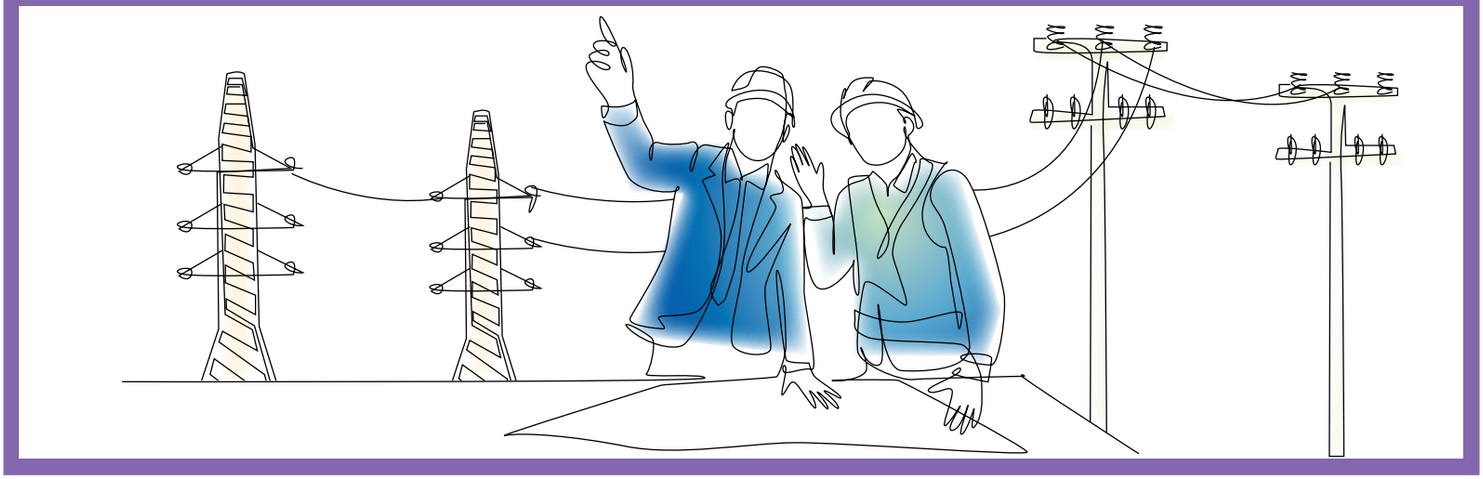
Total energy consumption within the organisation = (Non-renewable fuel + Renewable fuel + Electricity purchased for consumption + Hydro & Solar power generation) - Electricity sold

Energy Intensity = Total Energy Consumption (GJ)/Electricity Sold (MWh).

MM 4

Reliable Energy and Fair Tariff

We are committed to providing secure and reliable electricity to the nation while balancing the energy trilemma of energy security, affordability and sustainability. We work towards diversifying fuel sources, including from renewable sources such as hydro and solar, as we reduce dependency on imported coal. To ensure reliable energy with higher RE penetration to the grid, investments to strengthen, modernise and digitalise the grid and network infrastructure are ongoing to enable greater grid flexibility and regional interconnectivity.



For the country's economic growth and to address socioeconomic challenges towards becoming a developed nation, the Incentive-Based Regulation (IBR) model continues to be upheld together with the regulator, ensuring fair and transparent tariff determination.

MANAGEMENT APPROACH

Ensuring Reliable Supply

In 2023, we maintained world-class grid performance with System Minutes (Transmission) of 0.48 minutes and SAIDI (Distribution) of 46.10 minutes. This was achieved with the implementation of the ISO 55001 Asset Management System, a systematic and structured approach to ensure optimum asset performance throughout the life cycle, such as risk-based preventive maintenance leveraging data analytics. Approximately RM6.0 billion was invested in 2023 to strengthen the grid and ensure the reliability of energy supply.

Our Business Continuity Management (BCM) practices enable a prompt and coordinated response to a crisis, as well as the continuity of essential activities. Annual BCM drills across business entities, in collaboration with external stakeholders such as *Agensi Bencana Negara Malaysia* (NADMA) and *Majlis Keselamatan Negara* (MKN), are conducted to test our crisis response's effectiveness. For example, in 2023, specific business continuity plans were implemented that ensured continuous and reliable supply of electricity during the state elections and the Langkawi International Maritime and Aerospace Exhibition (LIMA). Our BCM was also tested during the monsoon season to ensure public safety and protect our assets for safe and prompt restoration of electricity supply.

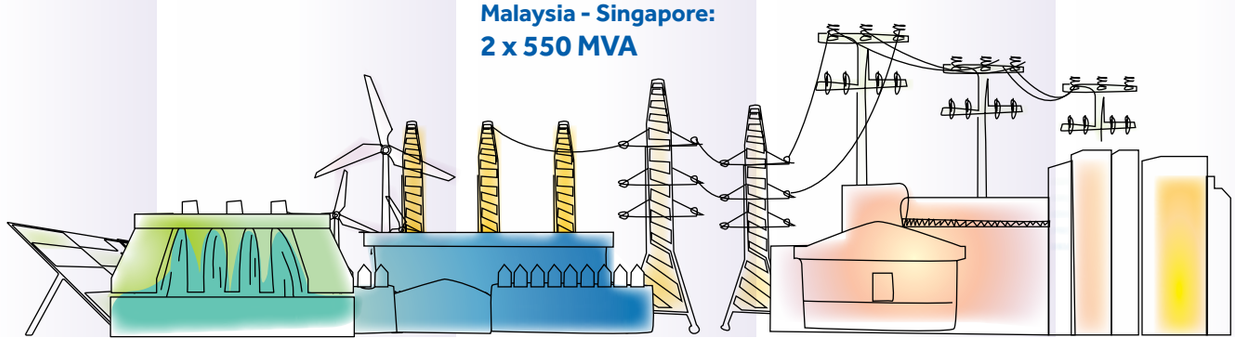
In balancing the energy trilemma in the country, the Generation Development Plan has been developed based on the guiding principle of optimum fuel mix to ensure optimum power security by providing adequate diversification of fuel and resources. TNB's varied generation fuel mix decreases the risk of dependency on a single fuel source and increases energy supply reliability. We work closely with the Ministry of Energy Transition and Water Transformation (PETRA) and the Energy Commission in developing the Peninsular Malaysia Generation Development Plan. Through the Planning and Implementation Committee for Electricity Supply and Tariff, an optimised generation fuel mix for Peninsular Malaysia is determined for secure, affordable and sustainable electricity supply.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Fair and Transparent Tariff Determination

The electricity tariff structure is governed by the Energy Commission based on the IBR framework with built-in incentives to improve our efficiency and for greater tariff transparency to our customers. We are protected against uncontrollable fuel costs with the effective implementation of the Imbalance Cost Pass Through (ICPT) mechanism. The mechanism and cost components in the electricity value chain are described below:

Fuel	Generation	Grid	Distribution Network	Retail
Peninsular Malaysia generation mix: **Coal** **58.58%** **Gas** **35.08%** **Hydro** **4.52%** **Solar** **1.61%** **Others** **0.22%**	**TNB market share in Peninsular Malaysia (Installed capacity):** **54%** **And remaining are Independent Power Producers (IPP)**	**Length of domestic transmission network:** **26,095km** **Substations:** **485 units** **Interconnection** **Malaysia - Thailand:** **380MW** **Malaysia - Singapore:** **2 x 550 MVA**	**Length of domestic distribution network:** **741,764km** **Substations:** **87,947 units**	**Total No. of customers in Peninsular Malaysia:** **10,161,957 customers** **Units sold:** **122,698.8GWh** **Rooftop solar:** **340.7MWp**



In 2023, we continued to implement the strategies and initiatives in Regulatory Period 3 (RP3), which spans from 2021 to 2024. We are committed to safeguarding this regime through the next RP with additional strategies to accelerate the nation's ET journey.

Bolstering Regulatory Engagement

We continue to regularly engage with regulatory stakeholders. Testament to our effective engagement are the Regulatory Relationship Strength Index (RRSI) scores that measure stakeholders' trust in TNB.

OUR PERFORMANCE

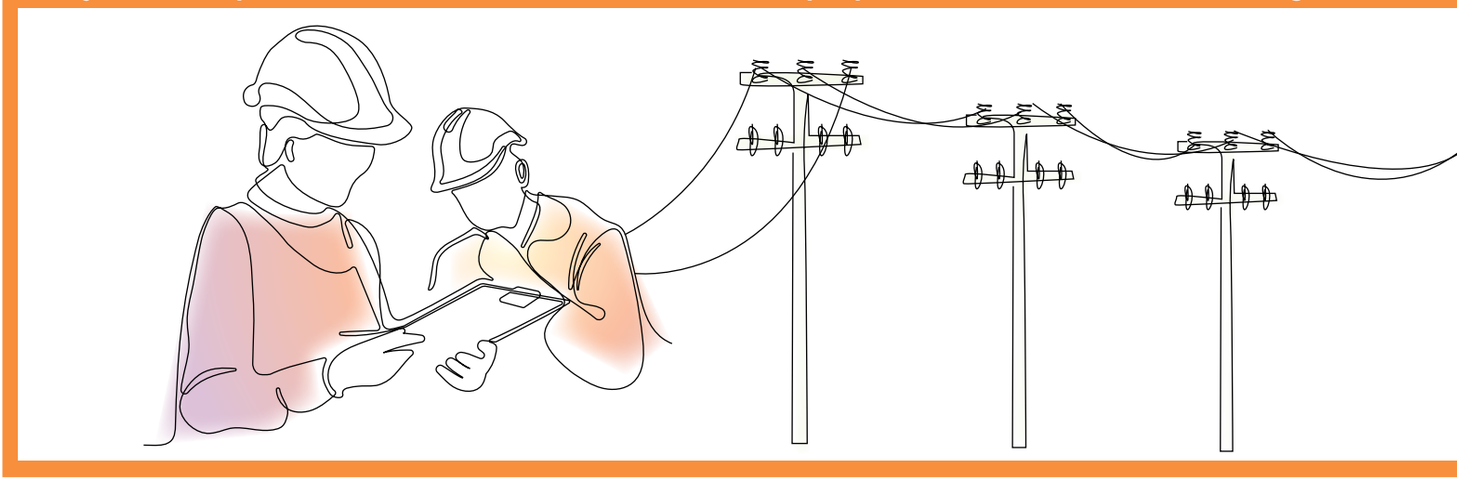
None of the Bursa 22 indicators relate to MM4.

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
1	SAIDI	-	Minutes	45.25	45.06	46.10	< 50.0
2	System Minutes	-	Minutes	0.09	0.17	0.48	< 2.0
3	Regulatory Relationship Strength Index (RRSI)	-	%	87%	85%	92%	> 87%

MM 5

Safety, Health and Well-being

Safeguarding the lives of both our employees and contractors through robust occupational safety and health systems as well as best practices is one of our top priorities. We strongly advocate and enforce stringent safety standards to prevent the occurrence of work-related injuries and illnesses to ensure the safety and long-term well-being of our workforce. We focus on stringent safety performance and continuous efforts to elevate our safety culture to prevent the loss of lives and ensure that our people are well cared for while working at TNB.



We aspire to achieve zero accidents by developing a generative Health, Safety and Environment (HSE) culture. We strongly advocate and implement rigorous safety standards to achieve our target of zero fatalities at the workplace and to maintain our Lost-Time Injury Frequency Rate (LTIFR) below 1.0.

MANAGEMENT APPROACH

Health, Safety and Environmental Management System (HSEMS)

We are guided by the TNB Occupational Safety and Health (OSH) Policy. Our TNB OSH Policy, among others, emphasises our commitment to complying with all applicable acts, regulations and other requirements, including the Occupational Safety and Health Act 1994, Electricity Supply Act 1990, Factory and Machinery Act 1967 and Fire Services Act 1988, as well as licence conditions as regulated by the Energy Commission. The TNB OSH Policy is implemented through our Health, Safety and Environment Management System (HSEMS), which is cascaded across the Group. Annual HSE Corporate Audits are conducted to measure compliance and provide assurance.

Life Saving Rules

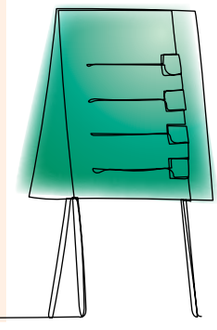
We have implemented six (6) Life Saving Rules (LSR) with the primary objective of preventing serious accidents that could result in fatalities among employees and contractors. In 2023, the LSR consequence management process was enhanced with the inclusion of human factor assessment.

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



SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Stop Work Intervention

In 2023, the TNB Stop Work Policy and *Intervensi Stop Work* (ISW) guidelines were fully implemented. These authorise employees and contractors to perform stop work intervention upon encountering any unsafe conditions or observing unsafe acts at the workplace.

Occupational Health

We continue to prioritise occupational health (OH) programmes that focus on Noise, Ergonomic and Chemical Management. In 2023, TNB actively participated in the Department of Occupational Safety and Health's Systematic OH Enhancement Level Programme to drive occupational health compliance in our business operations. This programme elevates occupational health among our employees. In 2023, the number of instances of occupational diseases reduced to ten (10) confirmed cases.

No. of Occupational Disease

Tenaga Safety Culture

The Tenaga Safety Culture programme aims to inculcate safety as an integral part of everyday working culture, transforming it from a mere compliance activity. The programme is rooted in our four (4) core behaviours: "Assess", "Comply", "Intervene" and "Actively Caring". Various initiatives have been rolled out to foster these core behaviours among all employees. Notably, a holistic approach, including spiritual considerations, has been embraced to align good safety practices with relevant religious teachings.

We continue to implement the *Nampak, Dengar & Rasa Selamat* (NDRS) programme to reinforce a strong HSE culture among all employees. The NDRS programme encourages employees to be sensitive to their surroundings, evaluate potential health and safety risks, comply with HSE requirements, and take proactive action to prevent risks from materialising. The NDRS framework focuses on three (3) elements - engineering, education and enforcement - and is supported by a consequence management process that rewards positive behaviour, encourages good practices and addresses non-compliance appropriately.

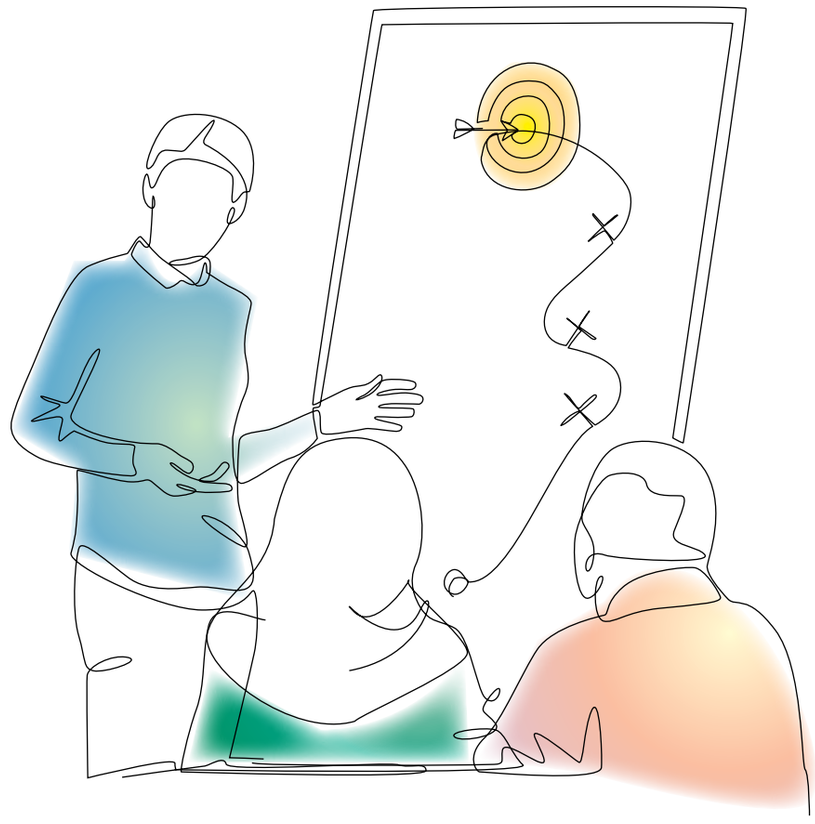
Best HSE practices are recognised annually with awards to business operations and individuals who have instilled a rigorous safety culture. In 2023, 11 business operations and 45 individuals were awarded.

The biennial TNB safety culture assessment was conducted using the "Hearts and Minds safety culture toolkit" methodology of the Energy Institute in the United Kingdom and showcased the progression of our safety culture to "Proactive", from a score of 4.02 in 2021 to 4.16 in 2023.

Health and Safety Training

We uphold a steadfast dedication to employee development in the area of health and safety practices and culture. In 2023, a total of 154,204 hours of health- and safety-related training for 14,014 employees were completed - a consistent increase from 2021 - to ensure our workforce is equipped with the necessary health and safety skills and knowledge.

Health and Safety Training Hours



SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Digitalisation as an Enabler

We leverage digitalisation to manage and centralise HSE data with the progressive rollout of modules for the holistic implementation of our eHSE online system. The TNB Safety Information System captures reports of incidents and near misses, and incidents are investigated to identify corrective and preventive actions to prevent recurrence. The HSE Wallet mobile application enables employees to record potential incidents, stop work intervention occurrences and good safety and health practices across the Group. These digitalised platforms further inculcate our TNB Safety Culture.

Total Wellness

We place high importance on employee wellness. The TNB Total Wellness Programme aims to educate and influence employees towards a healthy lifestyle and work-life balance. The "Vibrant Living - Healthier. Together" initiative focuses on six (6) scopes, which are a healthy diet, no smoking/vaping, leading an active lifestyle, weight management, yearly basic health screening and mental well-being. "Wellness Wednesday" health talks and awareness sessions are conducted online weekly, and open to all employees and retirees to increase awareness on common health issues and encourage healthier habits.

Three (3) *Klinik* TNB, located in TNB Platinum, Bangsar, DuaSentral, Kuala Lumpur and Janamanjung, Perak, have been operationalised to provide safe, effective and reliable medical care to our members (employees, retirees and their respective dependents). 1,276 panel hospitals and clinics are also available nationwide for easy accessibility to essential medical treatment and healthcare. In 2023, a new initiative, namely the Medication Delivery Service, was introduced to provide our members with a safe, reliable and cost-effective supply of long-term chronic medications through the *Klinik* TNB. In 2023, a total of 18,922 medication packages were delivered throughout Peninsular Malaysia.

Health and Safety Performance

In 2023, there were zero fatalities related to electrical accidents as compared to 2022 and 2021. However, we regretfully recorded four (4) non-electrical accident fatalities involving three (3) employees and one contractor resulting from motor vehicle accidents and hornet stings. We treat each incident with the utmost attention with thorough investigations and detailed analysis for corrective and preventive interventions at operations, Management and Board levels.

Following a fatality, immediate Stand Downs are implemented across the Group, led by Management, to alert our employees and contractors to prevent an occurrence of a similar nature. Incident Alert bulletins are disseminated to all employees to share immediate precautionary measures, while *Iktibar Insiden* bulletins are issued to share valuable lessons learnt from these unfortunate accidents.

Our LTIFR demonstrated a substantial 33% reduction in 2023 (LTIFR = 0.74) compared to 2021 (LTIFR = 1.03), a consistent improvement since 2018. This signified that there was less time lost resulting from work-related injuries.

LTIFR Trending from 2021 to 2023

Note:
Total man-hours do not take into account paid vacations, paid sick leave and state public holidays.

OUR PERFORMANCE

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Health and Safety							
1	Number of work- related fatalities	C5(a)	Number	8	2	4	Zero fatalities
	Employees			2	0	3	
	Contractors			6	2	1	
2	Lost time incident rate*	C5(b)	Per million man- hours	1.03	0.82	0.74	< 1.0
3	Number of employees trained on health and safety standards**	C5(c)	Number	5,943	18,986	14,014	20% increase in 2024 from 2023

* *Revised methodology for LTIR calculation to align with the GRI 403-9 definition.*
** *FY2023 data has been reported based on Health and Safety training categories. Past years' data has been reported for Health, Safety and Environment training categories.*

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

MM 6 Environmental Management

At TNB, our dedication to responsible environmental management resonates through tangible actions and ongoing initiatives, particularly in the areas of emissions, biodiversity, waste management and water management. The Board and Management have set a clear tone regarding environmental management for the preservation and conservation of natural resources, which is reflected in the TNB Environmental Policy. Our core businesses are ISO 14001:2015 compliant in Environmental Management System and we are guided by the TNB Health, Safety and Environmental Management System, which outlines environmental risk identification and control requirements.

In 2023, we enhanced our TNB Environmental Policy from compliance-based towards meeting our sustainability goals. The revised policy addresses gaps identified from environmental best practices with enhancements that focus on the reduction of GHG and toxic emissions arising from business operations, optimising utilisation of natural resources through effective conservation and preservation of water and biodiversity management, and protection of the environmental ecosystem through effective circular economy and proactive prevention of waste and pollution.

MANAGEMENT APPROACH

Management of Toxic Emissions

Beyond carbon dioxide (CO_2), the combustion of fossil fuels may yield other pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2) and particulate matter (PM) that potentially have long-term impacts on both the environment and health. We vigilantly monitor and curtail emissions of SO_2, NO_2, CO and PM in accordance with the Environmental Quality (Clean Air) Regulation (CAR) 2014. Annual declaration of toxic emissions is submitted to the Department of Environment and any deviation is reported within 24 hours with rectification measures.

We leverage a range of advanced technologies and practices to optimise fuel mix and maintain the effectiveness of emissions control facilities, such as:

1. Flue Gas Desulphurisation (FGD) implemented at TNB Janamanjung and Jimah East Power (JEP) to reduce SO_2 emissions
2. Electrostatic Precipitator (ESP) implemented at TNB Janamanjung and JEP for the removal of harmful particulate matter
3. Low NO_x burners implemented at TNB gas plants to curtail NO_2 emissions

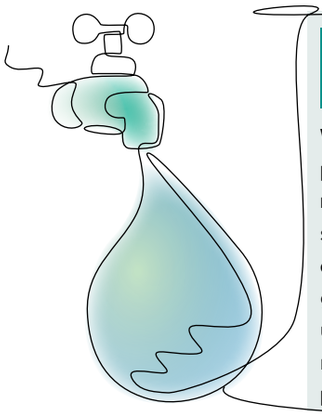
Refer to MM3 (Climate Change and Emissions) for initiatives related to emissions, pages 72-74.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Water Management

We are prudent in utilising and managing water consumption. In 2023, we continued to leverage digitalisation by introducing the TNB Water Management Inventory online system to track and monitor water consumption at our assets to progressively enhance data collection.

In power generation operations 80% of water consumption is used for steam generation and power plant cooling systems. All our generating power assets are built and operated in accordance with global World Bank Environmental and Social Standards.



Closed-loop water usage for steam generation

Water usage in our closed-loop steam generation process is relatively small, 1.87% to 3.08%, minimising our reliance on municipal water sources. Power plants continue to operate efficiently using the closed-loop steam generation processes efficiently to reduce water usage percentage through water treatment measures, blowdown minimisation and leak prevention

Water usage for power plant cooling system

Our cooling process, facilitated through the open circuit Main Cooling Water system, operates efficiently by utilising seawater or river water and subsequently discharging it back into the sea or the river at the regulated operating temperature. This ensures zero net water consumption while adhering to global water conservation standards set forth by the Electric Power Research Institute. Key parameters such as pH, temperature, oil and grease, total suspended solids, and specific contaminants like heavy metals are measured to ensure compliance

The Wastewater Treatment Plant employs sedimentation, filtration and chemical processes to eliminate pollutants. The Environmental Management System (ISO 14001) guides monitoring to ensure compliance with Environmental Quality (Industrial Effluent) Regulations 2009. While most plants adhere to Standard B limits, Sultan Ibrahim Power Plant (SPG) complies with the more stringent Standard A limit.

We continue to implement other water reduction initiatives for power generation processes as follows:

1. Boiler combustion tuning for our coal-fired boilers and gas turbine tuning to optimise water circulation ratio and feed water consumption when consuming fuel of diverse quality
2. Continuous upgrade of high-pressure valve materials to sustain continuous operation at zero leak and passing conditions
3. Periodical inspection of condensers using both online and offline methods to identify and reduce condenser tube leak incidents
4. Pre-emptive thermography and thermal scanning before planned outages to correctly identify and replace leaking valves
5. Improving feed water heaters and economiser temperatures by reducing spray water cooling upstream of the condenser neck

Rainwater Harvesting

We have embraced rainwater harvesting at TNB buildings for landscape irrigation and gardening which translates into a reduction of municipal water usage. This initiative is implemented at TNB Platinum Towers, Leo Moggie Convention Centre and Balai Islam, Bangsar. In total, the rainwater harvesting system has a holding capacity of 308,500 litres. In our pursuit of sustainable practices, we have implemented the rainwater harvesting system at TNB Sepang Solar and TNB Bukit Selambau Solar, which currently hold capacities of 24,000 litres and 1,000 litres respectively.

Waste Management

We are committed to effectively managing waste to reduce the adverse effects on human health and the environment. Hazardous and non-hazardous waste are two (2) primary types of waste generated in TNB, each demanding distinct handling and disposal strategies.

Hazardous Waste

Our hazardous waste handling and disposal process is regulated by the Department of Environment (DOE) and governed by the Environmental Quality Act 1974. Our Scheduled Waste Roadmap 2018-2030 aims to strengthen hazardous waste management with a phased approach involving all employees and key stakeholders.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

TNB Scheduled Waste Roadmap 2018-2030

Strengthening Hazardous Waste Management

2018
- Development of SW Guidelines
- Competencies building via CePSWaM

2020
- Internal audit and inspection on SW management in TNB
- SW Baseline data Reporting

2022
- Establishment E-Waste management Circular
- Strategic engagement with DOE on E-Waste programmes

2024
- SW Thematic Area: Fly ash
- Launching on SW Management System (SWAM)

2026
- Increase E-Waste collection rate by 15% from 2025
- TNB SW Roadmap Performance Review

2028
- TNB as an E-Waste collection centre
- Continuous CePSWAM capabilities training

2030
- TNB SW Roadmap Performance Review
- Increase TNB SW Recycle Rate by 50%
- Zero NCL on SW

PHASE 1 **PHASE 2** **PHASE 3**

- Competencies and Capabilities Building on Scheduled Waste Management
- Intensify the compliance of scheduled waste management through SMART enforcement and self-regulation approach
- Communication, Education and Employee Awareness (CEEA) on scheduled waste management
- Strengthening 4R principle (Reuse, Reduce, Recycle & Recover) and Safe Disposal Method for Scheduled Waste

2019
- Establishment of SW Guidelines

2021
- Establishment of TNB PCB Eradication Plan
- Establish Self Visual Report in Scheduled Waste Management

2023
- Development of E-Waste inventory reporting system (E-WI)
- SW Thematic Area: Clinical waste management at TNB clinics/ dispensaries
- Setting up SW War Room
- Benchmarking visit with other company on SW management

2025
- Increase TNB SW Recycle Rate by 30%
- Increase E-Waste collection rate by 10% from 2024
- TNB PCB Free

2027
- TNB SW Roadmap Performance Review
- Increase TNB SW Recycle Rate by 40%
- Increase E-Waste collection rate by 20% by 2026

2029
- Increase TNB SW Recycle Rate by 45%
- Increase E-Waste collection rate by 30% from 2028

Abbreviation:
SW: Scheduled Waste
CePSWaM: Certified Environmental Professional in Scheduled Waste Management
PCB:Polychlorinated Biphenyl
E-Waste: electrical and electronic waste
NCL: Notice, Compound, Lawsuit
DOE: Department of Environment

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

We continue to record, track and report scheduled waste generated by TNB operations in the Electronic Scheduled Waste Information System. In 2023, scheduled waste was further categorised as "diverted from disposal" and "directed to disposal". This categorisation helps us to understand our waste usage patterns to enable informed waste reduction strategies. The Electronic Waste Inventory System was introduced in 2023 as a tool to record, track and report electronic waste generated from TNB offices for a more holistic monitoring of e-waste management.

Non-Hazardous Waste

Our management of non-hazardous waste is regulated by the *Jabatan Pengurusan Sisa Pepejal Negara* and governed by the Solid Waste and Public Cleansing Management Act 2007 (Act 672). We are taking a phased approach towards improving our non-hazardous waste management.

In 2023, the Tenaga Solid Waste Inventory (TESWI) was established to kick-start our non-hazardous waste data collection. TESWI enables business operations to collect data and monitor solid waste generation to promote waste separation and encourage recycling practices.

Biodiversity Management

We implement preventive and rehabilitative measures to reduce our impact on local biodiversity, including minimising our operations in areas of high biodiversity value. We carry out Environmental Impact Assessments in compliance with the DOE requirements prior to project implementation and follow through with initiatives to ensure biodiversity protection.

Our biodiversity assessments are guided by the International Union for Conservation of Nature guidelines, aiming to protect the surrounding ecosystems of where we operate. Following are examples of biodiversity management projects undertaken:

Site	Project Description	Initiative
Nenggiri Hydroelectric Project	Implementation of a Wildlife Management Plan to ensure project development takes place with minimised impacts on the surrounding environment (biodiversity populations)	Published a Wildlife Management Plan with in consultation from with *Jabatan Perlindungan Hidupan Liar & Taman Negara* that outlines implementation steps in monitoring and managing wildlife. Environmental education and awareness programmes.
	Archaeological exploration and artifact excavation in collaboration with *Jabatan Warisan Negara* and *UKM Pakarunding Sdn. Bhd.*	Heritage Impact Assessment (HIA) is conducted as part of the overall Nenggiri's HEP Environmental Impact Assessment (EIA). HIA includes archaeological exploration and artifacts excavation in accordance with the National Heritage Act 2005 (Act 645). This effort helps to safeguard and restore invaluable national heritage and archaeological findings. Mitigating measures at the impacted archaeological sites are ongoing.
Fish Sanctuary AKEKCHEP, Sungai Tiang, Taman Negeri Royal Belum, Gerik, Perak	Biodiversity and Conservation conservation efforts in Belum Lama and Sungai Tiang areas	AKEKCHEP Sanctuary was established and launched by DYAM Raja Di-Hilir Perak. The word "akekchep" originates from the language of the Orang Asli Jahai whereby "akek" means "prohibited" and "chep" means "fish/catch".
Bukit Selambau Large-Scale Solar (LSS) Plant	Pilot study on the management and mitigation of human-macaque conflicts impacting the LSS operations	Outlining and implementing effective mitigation measures to control human-macaque conflicts. A macaque management plan was jointly published with *Jabatan PERHILITAN* as a future reference for conflict managment.
Hydro Lake Sultan Abu Bakar Cameron Highlands	Mitigation of sediment deposits and habitat rehabilitation and restoration	Collaboration with the Pahang State Forestry Department to rehabilitate the disposal area with suitable tree species and soil treatment and routine practices to enhance tree growth.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Site	Project Description	Initiative
Hulu Terengganu and Ulu Jelai Hydroelectric Stations, Terengganu	Annual ecology monitoring and assessment of changes in aquatic life population	Annual assessment of aquatic populations at hydroelectric stations to monitor environmental performance and make observations of ecological changes.
Bersia-Kenering, Perak and Kenyir Terengganu (transmission line and *Pencawang Masuk Utama* (PMU) development)	EIA study for project development	Baseline assessment prior to project development to understand existing environmental conditions and to assess impact prediction due to project development, and mitigation measures based on identified impacts.
Transmission lines	Deforestation control	Implementation of the Tree Hyperspectral Identification System via artificial intelligence and drone technology to ensure the route selection of proposed transmission lines avoids sensitive and/or endangered species in compliance with the Malaysian Forestry Department's blueprint. In the effort to preserve the Tampik River, a tourist destination in Janda Baik, Grid Division utilised helicopters for the transportation of equipment and materials during the construction of ten (10) transmission towers in the area. Through these efforts, the risk of environmental damage was significantly minimised, preserving 25 acres of forest land.

In 2023, RM3.386 million was spent on biodiversity assessment projects.

OUR PERFORMANCE

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Water and Waste Management							
1	Total volume of water used*	C9(a)	megalitres	8,431	10,531	10,096	2% reduction in water used in buildings
2	**Total waste generated, and a breakdown of the following:	C10(a)	metric tonnes	47,829	74,150	929,123	30% recycling rate of hazardous waste by 2025
	(i) total waste diverted from disposal	C10(a)(i)	Metric Tonnes	-	-	440,595	
	(ii) total waste directed to disposal	C10(a)(ii)	Metric Tonnes	-	-	488,528	

* *FY2023 data was revised using a new methodology aligning with GRI 303-5 using the following formula:*

Water consumption = Total water withdrawal - Total water discharge

i. For water consumption indicators, seawater used in power plant cooling systems is excluded, as it is returned in full to the nature receptors without substantial changes in quality apart from a slight increase in temperature, subject to authorisation and continuous controls to guarantee the absence of measurable impacts on exposed ecosystems.

ii. Total water withdrawal is the sum of the various water resources obtained by direct measurement (flowmeters) or by estimating the output of the water withdrawal pumps. In TNB, most of the water withdrawn is used in cooling processes, especially in power generation. The rest of the water withdrawn corresponds to other auxiliary services of the generation plants and consumption at offices.

iii. Total water discharge data is obtained from the power plant's water treatment facilities prior to discharge in full to natural receptors.

** *Hazardous waste only. The revised methodology used for FY2023 data includes fly ash from coal power plants and e-waste from offices. The target declared is aligned with the DOE target under Pelan Strategik Jabatan Alam Sekitar, Malaysia (Teras 1: Penguatkuasaan Pintar). The recycling rate refers to the total waste diverted from landfills.*

MM 7

Customer Experience and Satisfaction

It is our pride and our privilege to serve our diverse range of customers with quality products and services, while continuously finding ways to enhance the customer experience. In recent years, we have also sought to empower our customers with smarter and greener solutions.

Our annual Customer Satisfaction Index (CSI) is the primary platform for gauging how happy our customers are with our service delivery and solutions. Several aspects are included in the assessment, such as TNB's reputation, branding, reliability of electricity supply, and energy efficiency, as well as the customer service experience. In 2023, we achieved a high CSI score of 88%, maintaining a score of more than 85% for three (3) consecutive years.

MANAGEMENT APPROACH

Strengthening Customer Experience

While we operate through four (4) primary communication channels: Click, Call, Come Over, and Go Over, our Click channel has witnessed continual growth over the years with 6.7 million subscribers to the myTNB platform, constituting over 66% of our customer base. We continue to provide appointments for customers who prefer face-to-face transactions at our *Kedai Tenaga*.

Digitalising Customer Services

In line with our commitment to digital transformation, we consistently expand the range of services available on our digital customer platforms to meet evolving customer needs and expectations, such as:

1. Digital billing for customers who opt for e-bills instead of printed bills, contributing to environmental friendliness. By the end of 2023, we have over 1.02 million customers receiving digital bills
2. User-friendly digital billing layout to ease customer understanding and aid navigation across various information related to the customer's energy consumption and cost
3. The myTNB Energy Budget feature empowers smart meter users to efficiently regulate their electricity usage by establishing threshold alerts. By the end of 2023, approximately 287,625 customers had subscribed to the Energy Budget facility. As a result, these customers have collectively reduced their electricity consumption by 86,935MWh, which is equivalent to about 60,856 tonnes of CO_2 emissions avoidance

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Safeguarding Customer Privacy

We are unwavering in our dedication to ensure the privacy and security of our customers' data. Our cybersecurity measures are outlined in the TNB Cyber Security Operation Model that are aligned with regulatory requirements such as the Personal Data Protection Act (PDPA) and adhere to industry standards like the Payment Card Industry Data Security Standard.

Refer to MM10 (Cybersecurity Management), pages 100-101.

Facilitating Customers' ET Journey Through Dynamic Energy Solutions

We believe that customers play an important role in Malaysia's ET journey. We provide opportunities to customers to make informed choices on RE and EE such as:

Feed in Tariff (FiT)	Net Energy Metering (NEM)	Green Electricity Tariff (GET)	Rooftop Solar PV (GSPARX)	Supply Agreement for Renewable Energy (SARE)
Customers in the FiT programme export RE produced to the national grid at a fixed price. In 2023, 9,475 new FiT projects were commissioned with a total installed capacity of 585.97MW	Customers export excess energy produced from their solar PV systems to the national grid. To date, cumulatively around 24,664 NEM participants make up a total installed capacity of 970.5MW	GET is a government initiative offering customers to choose their electricity sources from RE to reduce their carbon footprint. In FY2023, 2,753 customers subscribed to GET with a total annual consumption of 4,181MWh	GSPARX enables customers to install solar PV without any upfront costs, allowing customers to realise savings through self-consumption. In FY2023, 442 new contracts were secured by commercial and industrial customers through SARE with a total contracted capacity of 144MWp	SARE is a tripartite agreement between the asset owner, TNB as the billing agent and the customer. It allows customers to enjoy solar energy generated by the solar PV system installed at their premises without the need to pay for the system

Enhancing Customer Satisfaction

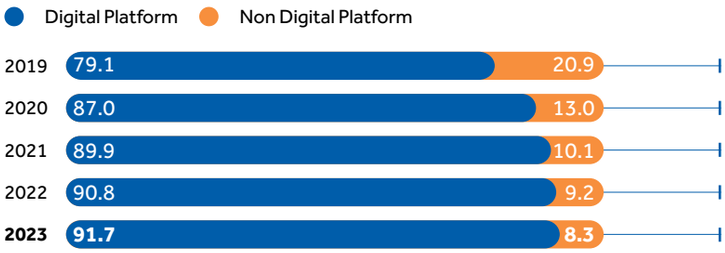
In 2023, we recorded a Customer Satisfaction Index (CSI) score of 88% and an overall Customer Experience Index (CEI) score of 95%. The CEI data provides insights into customer satisfaction and their experiences across various digital and on-site customer service platforms. We also registered an increase in customer interaction through our digital platforms such as the myTNB app, from 90.8% in 2022 to 91.7%. Through these interactions, we achieved an impressive 90.59% score (5-star rating).

Our customers are provided with multiple platforms, such as TNB Careline's official Facebook page and one-stop call management centre (15454), to channel their suggestions, requests, complaints and questions. We are committed to responding to all feedback and recorded a 99.7% resolution rate in 2023, in accordance with the Minimum Service Level regulated by the Energy Commission.

CSI (%)

CEI (%)

Customer Interaction Channels (Digital/Non-Digital) (%)



Number of Customers Subscribed to myTNB

OUR PERFORMANCE

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Customer Experience and Satisfaction							
1	Number of substantiated complaints concerning breaches of customer privacy and losses of customer data	C8(a)	number	-	-	0	Zero complaints
2	Subscription to myTNB apps	-	number	5.6mil	6.3mil	6.7mil	70% of total TNB customers in 2024
3	Rooftop solar	-	MWp	22	45	105	120 - 150MWp installation in 2024
4	CSI	-	%	87%	87%	88%	85 - 88%

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

MM 8

Community Development and Human Rights

We believe in building the nation through reliable and affordable electricity, and contributions that engage and develop the community. We aspire to drive progress and bring positive impact to the community through various corporate responsibility programmes by allocating 1% of our Profit After Tax towards these programmes. We are committed to community development in line with our tagline "Better World. Brighter Lives." by brightening lives in Malaysia and beyond.

As a key enabler of Malaysia's ET, we strive towards a just and inclusive transition for everyone concerned, leaving no one behind.

MANAGEMENT APPROACH

In 2023, TNB invested over RM99 million towards community programmes, strategically allocated across four (4) key focus areas, namely Social, Education, Sports and Environment. This dedicated funding highlights our commitment to positively impacting communities and meeting their specific needs.

SOCIAL

Home For the Needy

We actively engage in supporting livelihoods and elevating the economic and social quality of life for individuals within our communities. In 2023, we continued to refurbish and build new homes for underprivileged families amounting to RM0.2 million through our Homes for the Needy programme.

Rural Electrification Programme

Through the Rural Electrification Programme *(Bekalan Elektrik Luar Bandar - BELB)* carried out in collaboration with the Ministry of Rural and Regional Development, TNB facilitates electricity access in rural regions, encompassing villages and Indigenous People settlements situated beyond the operational reach of local authorities. Where feasible, we integrate these areas into our grid lines. In instances where settlements are too remote for grid line connection, we deploy off-grid solutions, including solar hybrids, generator sets and mini-hydro systems. In 2023, we enhanced the connectivity to remote villages, demonstrating our ongoing commitment to extending power infrastructure to underserved areas.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

SOCIAL

Village Street Lighting Programme

In 2002, the government initiated the Village Street Lighting programme, aiming to illuminate public areas in remote villages, enhancing community safety during the night. In 2023, a total of 219 units of village streetlights were successfully installed with a total cost of RM401,000.

Engaging Indigenous People

We actively engage with the Orang Asli communities who live near our operation sites with initiatives aiming at improving their well-being and socioeconomic conditions. For accessible education, TNB has set up a scholarship fund for underprivileged Orang Asli children, providing them with the opportunity to pursue their academic and career goals, and improving the standards of living of the recipients and their families in the long run.

Various engagement activities and socioeconomic resilience programmes were also conducted to foster community cohesion and well-being. At Pos Tohoi and Pos Pulat, Kelantan, for example, the following activities were carried out in 2023:

- Briefing the *Jawatankuasa Pembangunan dan Keselamatan Kampung Orang Asli* (JPKKOA) on the compensation package, which includes compensation for loss of trees and structures
- Engagement with community representatives, Non-Governmental Organisations, The Human Rights Commission of Malaysia (SUHAKAM) and government agencies on the draft of the Formal Stakeholder Acceptance Document
- Social Resilience Programme on Youth Empowerment *Bimbing Anak Komuniti Temiar* (BAKTe) with *Sekolah Menengah Sains Gua Musang, Sekolah Kebangsaan Pos Pulat* and *Sekolah Kebangsaan Pos Tohoi*
- Pilot chilli farming programme at Pos Pulat
- Construction of a temporary jetty at Pos Pulat for land fishermen
- Donation of freezer chests for the use of land fishermen
- Implementation of Phase 4 of the Small House Repair Programme
- Distribution of clothes and *Ramadan* food packs
- Gotong-royong activities and *Hari Raya Aidilfitri* celebration
- Football match
- Donation of laptops and printers to JPPKOA

At our Nenggiri Hydro Project site, we carried out a resettlement programme for approximately 300 impacted Orang Asli households. The resettlement programme supports income restoration and upliftment with provision of land for rubber and fruit plantation. Training programmes for upskilling and re-skilling are also provided to increase productivity and employability. At the same time, the resettlement programme provided housing of approximately 800 square feet for each household. The housing area is equipped with infrastructure and amenities such as healthcare centre, clean water supplies and school.

Education

We continue to uplift communities by fostering accessible and high-quality educational opportunities. Our commitment is exemplified by our initiatives aimed at transforming lives, not only of individuals but also of families and future generations, through education.

Malaysia Energy Literacy Programme (MELP)

As a key enabler of Malaysia's ET, we believe that public education is key to a successful and inclusive energy transition. To this end, we promote energy awareness through the MELP in collaboration with the ministry, its agencies and the regulator. The MELP aims to increase awareness of balancing the energy trilemma, build critical mass support in driving energy sustainability and expand an energy-literate society.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

SOCIAL

PINTAR School Adoption and *Program Ceria ke Sekolah*

In 2023, our contributions to Pintar School and *Program Ceria ke Sekolah* programmes amounted to RM815,000. The Pintar School programme assists selected schools through initiatives such as motivational camps, tuition classes, examination seminars and workshops, and sports training. Additionally, TNB organises the *Program Ceria ke Sekolah* to provide primary school students from low-income families with adequate school supplies such as school uniform, pants, and headscarves, school bags and shoes. In 2023, we contributed RM0.5 million to this programme which benefited to 2,500 students.

Yayasan Tenaga Nasional (YTN)

We continue to sponsor at the higher education level, both locally and abroad, in the form of scholarships and convertible loans for students through YTN. In 2023, we contributed more than RM70 million to 3,397 students for their higher education, particularly those in the B40 group through the Dermasiswa My Brighter Future (MyBF) programme.

The MyBF programme, which has been in place since 2018, has provided educational assistance to less fortunate students from B40 families to improve their standard of living for a brighter future.

YTN also provides development programmes for *Sijil Pelajaran Malaysia* (SPM) and pre-SPM students through exam preparation programmes in Peninsular Malaysia and Sabah. In 2023, a total of 290 students participated in the programme, which included 110 students from the B40 group in Sabah, in collaboration with Universiti Malaysia Sabah. This programme also fosters the mindset of giving back to the community among the sponsored students.

Universiti Tenaga Nasional (UNITEN) - The Energy University

We continue to provide accessibility to quality education through our investment in UNITEN - The Energy University, which produces highly employable graduates at a 96.8% employability rate. Our two (2) university campuses at Putrajaya and Bandar Muadzam Shah, Pahang, increase accessibility for higher education to all communities.

In 2023, a total of 700 students participated in digital and flexible learning platforms such as Massive Open Online Courses, Open Learning and TagYard, as an alternative to conventional face-to-face teaching and learning experiences.

UNITEN also provides financial support to deserving students through scholarships and convertible loans. In 2023, 2,706 students received a total sum of RM10.8 million.

TNB Integrated Learning Solutions Sdn. Bhd. (ILSAS)

ILSAS is a premier training institution for professionals in the wider power and utility industry and is the training institute for TNB. All technical capability development programmes conducted by ILSAS are in line with the requirements of the Malaysian standards. The training modules in ILSAS are also accredited by City & Guilds UK (for technical programmes), and the Institute of Leadership and Management (ILM) UK (for leadership and management training modules). ILSAS continues enhancing its strength by following its strategy, objectives and initiatives, delivering diverse training and education that impacts the economy, environment and people in various ways. ILSAS conducts the yearly ILSAS International Conference on Learning and Development (ICLAD). In November 2023, ILSAS held ICLAD23 with the theme "Building Resilience: People's Capability Development in the Face of Change". The conference contributed to the overall organisational culture, emphasising the importance of Environmental, Social and Governance (ESG) adoption for growth at all levels.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

SOCIAL

Sports

TNB's commitment to hockey development is a driving force behind Malaysia's success. Since the 1970s, TNB has been synonymous with the sport, leaving an indelible mark on the growth of hockey in Malaysia, including producing many world-class national players. We foster national hockey development through the TNB Thunderbolts programme, which is aimed at developing and nurturing high-potential youth hockey players, between the ages of 13 and 17, to become future stars in the game. In 2023, our contributions to hockey development amounted to RM5.6 million. TNB employees who were former national hockey players volunteered to coach promising students from selected local schools. Coaching programmes such as the *Pembangunan Klinik Hoki Remaja Negara* and *Kem Bakat Hoki 2023* were conducted with selected schools and clubs in Perak, Perlis and Pulau Pinang, in which around 70 teachers and more than 100 students participated.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

ENVIRONMENT

In 2023, our contributions to environmentally related corporate responsibility programmes amounted to RM1.48 million, reflecting our commitment to fostering eco-friendly practices, biodiversity conservation and community involvement in environmental stewardship. We aim to create a lasting positive impact on the ecosystems and communities we serve, contributing to a healthier and more sustainable future.

My Brighter Green Programme

One highly effective method of conserving the environment is tree planting, a simple yet impactful action that creates awareness and contributes significantly to reducing the accumulation of greenhouse gases. In 2023, we continued in our tree-planting endeavour through the My Brighter Green Programme, in conjunction with TNB's 74th anniversary. This initiative spanned the entirety of the TNB Group, with over 74,000 trees strategically planted across 42 designated areas throughout Malaysia in FY2023.

Furthermore, in 2023, TNB actively participated in cleaning activities at local beaches, such as Pantai Desaru, Johor Bahru. This effort was conducted in collaboration with the Department of Environment (DOE) underscoring TNB's dedication to environmental stewardship and community partnership.

Additionally, Grid Division collaborated with the Malaysia Nature Society (MNS) and Bentong Forestry Department on a tree planting programme at Janda Baik, Pahang in October 2023, spanning across three (3) acres of forest land. We also partner with other key stakeholders such as the *Sahabat Alam Sungai Tampik* NGO, Forest Research Institute Malaysia (FRIM), State Forestry Departments, UiTM Shah Alam and TNB Research Sdn. Bhd. on initiatives aimed at preserving forests and protecting endangered tree species.

OUR PERFORMANCE

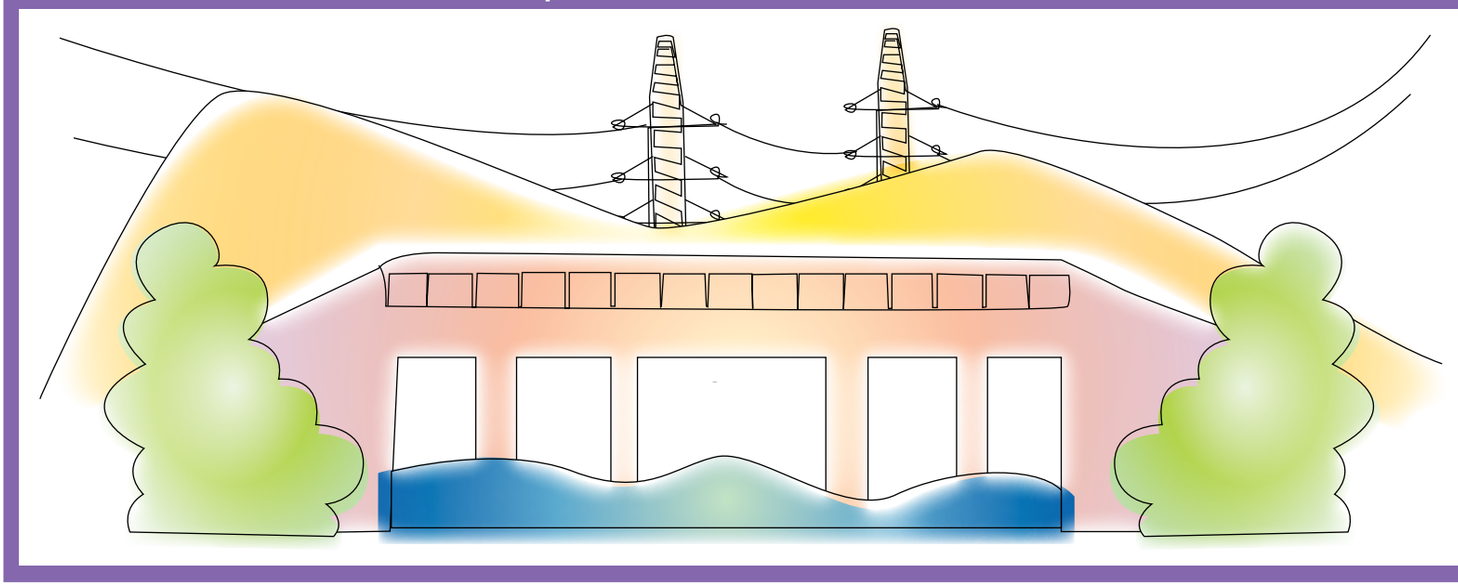
No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Community/Society*							
1	Total amount invested in the community where the target beneficiaries are external to the listed issuer	C2(a)	RM million	39.57	12.20	99.04	1% from PAT
2	Total number of beneficiaries of the investment in communities	C2(b)	No. of beneficiaries	-	-	6,635	

* *Change in scope for FY2023 data, which includes educational support from YTN and UNITEN.*

MM 9

Sustainable and Responsible Supply Chain

We drive sustainability within our supply chain by advocating sustainability practices across the ecosystem, from raw material extraction to end-of-life disposal.



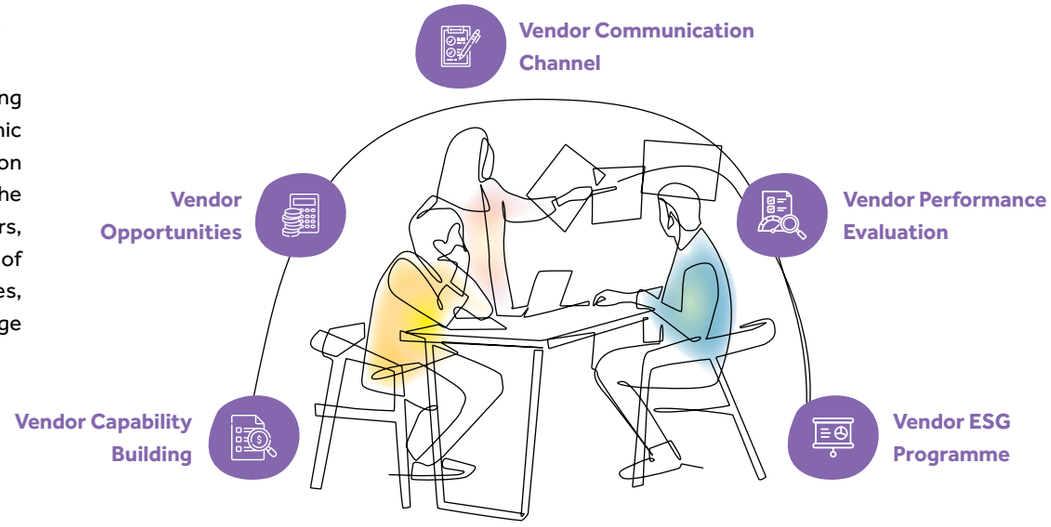
Considerations are given to environmental, social and governance impacts to ensure a responsible procurement process. The TNB Procurement & Supply Chain Policy and Procedures govern the execution of best-value procurement, upholding transparent and ethical practices to our vendors and contractors by implementing the TNB Code of Business Ethics and Procurement Code of Conduct.

We support local Malaysian suppliers and understand the importance of our role in strengthening the local value chain ecosystem. We engage with our strategic suppliers and set gradual expectations aligned with our sustainability goals in respecting human rights and reducing carbon emissions and environmental footprint, among others. This will improve transparency in emissions accounting and enable reductions within our Scope 3 emissions. Recognising our small and medium-sized enterprise vendors' struggles, a Vendor Management Programme is ongoing to educate and develop vendor capabilities.

MANAGEMENT APPROACH

Vendor Development Ecosystem

Our commitment to local sourcing has resulted in a tangible economic impact, contributing to job creation and economic stability within the community. By engaging local vendors, we actively promote the uplifting of local capabilities and competencies, creating opportunities for a wide range of businesses to thrive.



SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Vendor Capability Building

Through our Bumiputera Manufacturers and Contractors Programme, we have appointed 726 *Kontraktor Kerja Bumiputera* (KKB) and *Kontraktor Perkhidmatan Bumiputera* (KPB) alongside 26 local manufacturers in our vendor ecosystem.

In 2023, we allocated RM1.1 billion towards these Bumiputera contractors, an increase of 11.72% compared to 2022 and RM331 million for Bumiputera manufacturers in alignment with the Bumiputera Spend Share Policy. The vendor development programmes are integrated and conducted with ILSAS.

Vendor Opportunities

Strategic business matching activities are pivotal in our journey towards sustainable procurement:

- Data-driven matching - data analytics to identify suppliers with proven track record of sustainable practices.
- Stakeholder collaboration - with industry associations and government-linked companies, to identify and connect with suppliers that prioritise sustainable initiatives.
- Matchmaking events - to expand supplier base through events with SME Corp, Business Opportunity, Business Partnership Retreat and Vendor Day.

Vendor Communication Channel

In 2023, we continued to engage with our vendors and key stakeholders such as *Persatuan Rakan Niaga Strategik Malaysia* (PERNISMA) and *Persatuan Usahawan Tenaga Malaysia* (PUTM), through various communication channels:

- Face-to-face engagements - Business Partnership Retreat, Opportunity Day, and dialogues, including sessions with the TNB top management
- Social media platforms
- Procurement Cycle Digitalisation Rangers - inquiries about the e-tendering system.
- Sistem Maklumbalas Bahan (SMB) is a two-way communication platform for defects and warranty review. In 2023, 585 SMB tickets were raised and addressed

Vendor Development Programme Activities for 2023

Category Strategy Retreat 2023: TNB and Vendor Business Partnership (Session 1)	*Teh Tarik* Session with TNB's Chief Procurement Officer with *PERNISMA*	Engagement session with *Rakan Niaga Strategik Pulau Pinang*	Discussion between TNB's Procurement & Supply Chain department and *PUTM*	TNB & Vendor Business Opportunity Day (Session 2)	Dialogue session between President/ CEO of TNB and *PERNISMA*	*Bengkel Penambahbaikan Programme Pengilang dan Kontraktor TNB* with *PUTM*
7 February 2023	4 July 2023	24 August 2023	4 September 2023	21 September 2023	11 October 2023	10 October 2023
Half-Yearly	Quarterly Meeting	As and when required	Quarterly Meeting	Half-Yearly	As and when required	As and when required

Vendor Performance Evaluation

We continued implementing the Contractor Assessment and Supplier Evaluation (CASE) as a dynamic and transparent tool for vendor performance monitoring and evaluation. Vendors with ratings below three will be notified and engaged in performance improvement. CASE results are key input for assessing vendor selection.

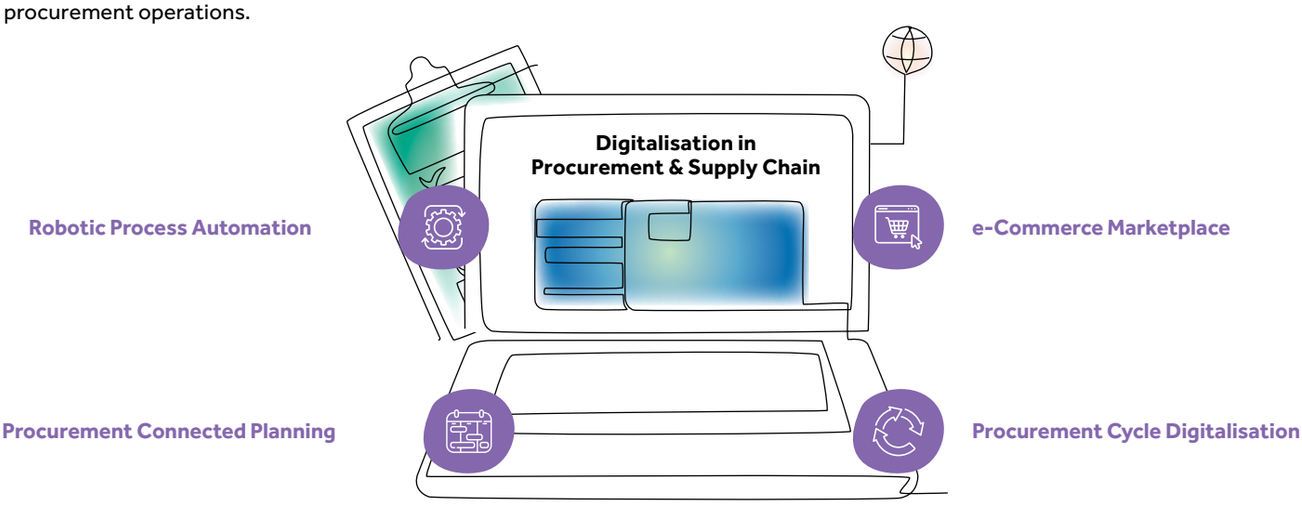
Vendor ESG Programme

In 2023, we embarked on a survey to assess the ESG readiness of our active vendors. Approximately 20% had responded by the end of 2023. We are developing a comprehensive ESG programme to ensure that our vendors are in harmony with our ESG aspiration. This initiative underscores our dedication to responsible and sustainable business practices.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Digitalisation for Sustainable Supply Chain

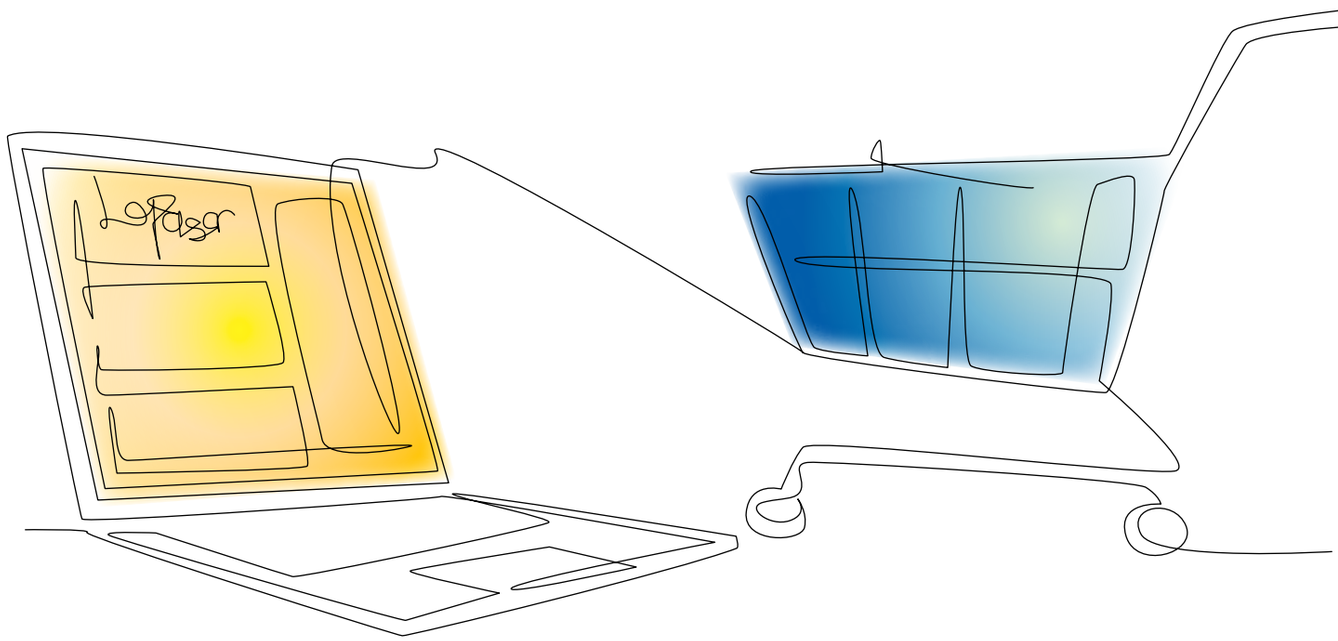
We leverage digitalisation to propel us towards a more efficient and streamlined approach, reducing reliance on manual systems and saving valuable time in our procurement operations.



e-Commerce Marketplace

We continue to embrace e-commerce platforms such as Lapasar, MyB2b and RS Puma to improve our sourcing productivity. We have streamlined our digital processes to optimise inventory management and enhance operational efficiency through real-time tracking. As a result, we have better control over inventory levels and minimise shortages or excesses.

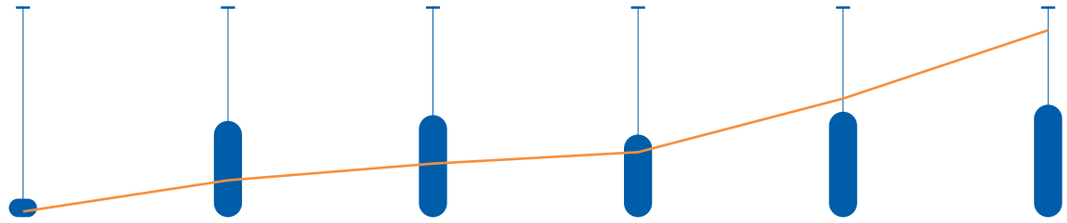
Since the inception of these e-commerce initiatives, TNB has experienced consistent growth in e-commerce platform transaction volumes. This trend underscores the effectiveness and acceptance of e-commerce platforms within our procurement framework.



SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Cumulatives Lapasar Spending & Transaction (2018-2023)

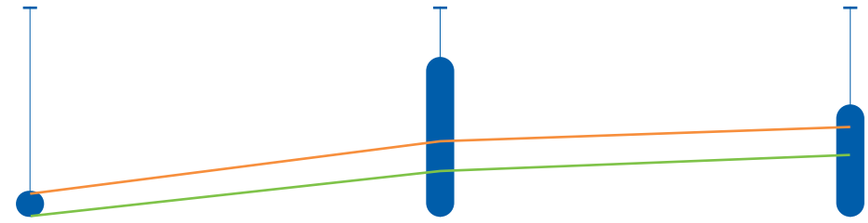
TOTAL SPEND:
RM81,602,316.52
TOTAL TRANSACTION:
52,031



	2018	2019	2020	2021	2022	2023
Amount (RM)	772,358.70	6,856,457.31	9,401,664.23	11,447,119.17	20,640,259.44	32,484,457.67
Transaction	1,786	9,821	10,276	8,347	10,527	11,274

Cumulatives Lapasar Spend & Rebate (July 2021-October 2023)

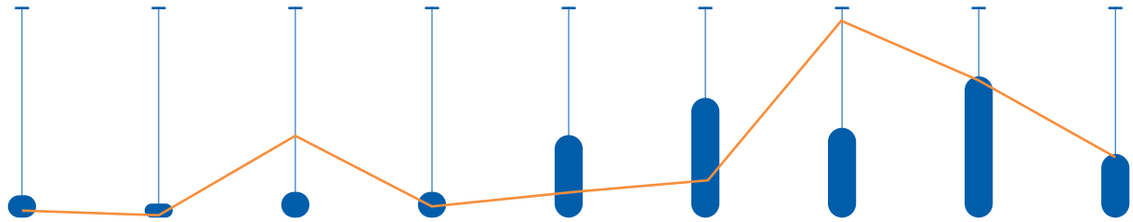
TOTAL SPEND:
RM51,367,747.01
TOTAL TRANSACTION:
23,683
TOTAL REBATES:
RM627,752.02



	2021	2022	2023
Total Spend (RM)	6,997,900	20,348,840	24,021,007
Transaction	4,549	10,497	8,637
Rebates (RM)	72,890	246,454	308,407

MYB2B Spending & Transaction (2023)

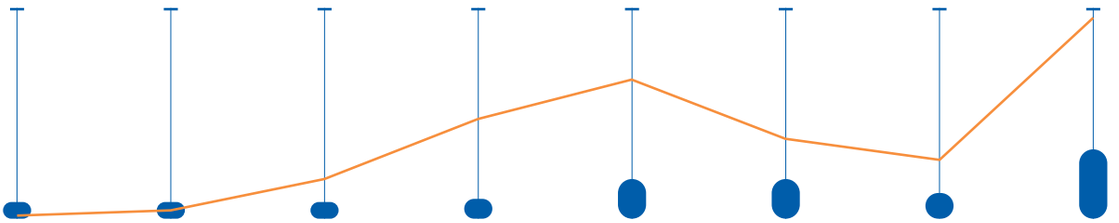
TOTAL SPEND:
RM314,262.03
TOTAL TRANSACTION:
136



	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOV	DEC
Total Spend (RM)	2,312.58	1,730.20	47,875.10	5,190.07	14,711.60	19,918.18	111,672.10	78,175.67	32,676.53
Transaction	5	3	6	6	19	28	21	33	15

RS Puma Spending & Transaction (2023)

TOTAL SPEND:
176,035.17
TOTAL TRANSACTION:
60



	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOV	DEC
Total Spend (RM)	318.13	2136.1	11,578.89	27,978.46	40,034.32	22,602.82	15,620.65	55,765.80
Transaction	4	4	4	5	10	10	6	17

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Procurement Connected Planning (PCP)

We continue to enhance our procurement planning through PCP. This cloud-based platform allows collaboration between TNB and vendors to plan and manage our supply chain using advanced data analytics. With automated data integration, PCP enables real-time analysis, planning, and dashboards such as Demand Planning, Inventory Management, Supplier Delivery Performance, Contract Monitoring, Vendor Risk Analysis and Spend Analysis to enable informed decision-making.

Procurement Cycle Digitalisation (PCD)

The PCD integrates work processes. It accelerates procurement lead time by providing visibility, traceability and transparency of transactions while improving governance and compliance with regulatory requirements. We implemented six (6) key modules: Sourcing Management, Scrap Management, Material Management, Product Inspection Management, Logistic Management & Customer Interactive Portal. In 2023, the system processed approximately 4,900 sourcing requests.

Robotic Process Automation (RPA)

Since 2018, RPA has been implemented for the issuance of purchase orders to appointed contractors under the KKB and KPB programmes. This system promotes the fair award of works and services to these contractors. In 2023, the RPA issued approximately 35,000 purchase orders.

Supply Chain Management

TNB recorded a substantial spending of approximately RM37 billion in 2023. The spend trend reflects a growth trajectory as Malaysia recovers from the post-pandemic era; 46.45% of our expenditures in 2023 was awarded to local vendors and suppliers.

Approximately RM25 billion was fuel-related, mainly on fuel gas sourced locally and coal fuel sourced internationally from foreign suppliers to ensure suitable coal quality for coal power generation in Malaysia. Of the non-fuel spending of RM11.6 billion, approximately 91% was from local suppliers.

We are dedicated to cultivating a supply chain ecosystem that meets and aspires to the highest standards of ethics, integrity, and transparency. Our commitment to these principles ensures that our procurement practices contribute to establishing a sustainable and responsible business environment.

Recognition

We continuously seek feedback from our vendors through an annual vendor satisfaction survey. This enables us to better collaborate with our vendors to deliver quality products and services and provide a reliable electricity supply to our customers. In 2023, we achieved 85% vendor satisfaction.

OUR PERFORMANCE

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Supply Chain Management							
1	Proportion of spending on local suppliers*	C7(a)					
2	% of spend on local suppliers		%	97.90	95.10	46.45*	>35%**
3	Total spend on local suppliers		RM bill	9.82	10.38	17.18	

* *Data disclosed for FY2023 is based on spend under TNB Group extracted from TNB Enterprise Resource Management (ERM) system, including fuel purchases. All internal spends between TNB Business Entities are excluded.*

Previous years (2021 and 2022) data were disclosed based on spending under TNB company and subsidiaries TPG SB, TNB Retail SB and TNB Renewables SB. All fuel-related purchases were excluded. The data also includes internal spends between TNB Business Entities.

** *Target is for TNB Group's spend on local suppliers registered in TNB's procurement system.*

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

MM 10 Cybersecurity Management

As we focus on better customer experience through digitalisation, we continue to strategically safeguard our Information Technology (IT) and Operational Technology (OT) systems. Through these systems, we enable a reliable and secure supply of electricity to the nation. Our cybersecurity management aims to protect data confidentiality and integrity, as well as ensuring the availability of our critical IT and OT systems.

We are vigilant in our efforts to protect the data privacy of our 10.14 million customers from unauthorised access and use. Our efforts include robust initiatives identified in our cybersecurity operating model and compliance with regulations such as the Personal Data Protection Act (PDPA) and industry standards.

MANAGEMENT APPROACH

Securing Our Data and Network Infrastructure

The cybersecurity management of our Information and Communications Technology (ICT) assets and services is governed by the TNB ICT Security Policy and ICT Code of Practice. The policy and code of practice ensure our employees are aware of their respective responsibilities and obligations in protecting the confidentiality, integrity, availability and authenticity of our ICT assets in the execution of day-to-day business operations.

We conduct around-the-clock monitoring of cyber threats to our systems to ensure the reliability of electricity supply and to protect company data, including the personal data of our customers. We are presently accredited with globally recognised cybersecurity standards, specifically the ISO/IEC 27001:2013 Information Security Management System for TNB's key point installations and data centres. We also adopt IEC 62443 best practices that address cybersecurity mitigations for OT in automation and control systems. Additionally, we are certified in the Payment Card Industry Data Security Standard for payment card transactions to secure our payment gateways and mitigate potential data theft and fraud.

We employ cloud services in our business operations, leveraging their scalability and accessibility advantages. To ensure our data security and privacy are of the highest standards, we ensure that these service providers comply with related international standards, such as ISO/IEC 27017, ISO/IEC 27018 and Service Organization Control Type 2 (SOC 2). We have established an Enterprise Data Governance (EDG) framework to ensure consistent management of information systems throughout the Group and for the safe handling of data sharing in compliance with the PDPA.

Being a responsible company that processes data for 10.14 million customers, a comprehensive process is in place to handle the potential loss of private customer data. Continuous data analysis is conducted to identify and rectify errors found in customer data in line with established policies and procedures. Other control measures include the utilisation of electronic Know Your Customer and digital signature solutions. In 2023, a PDPA e-learning module specifically tailored for Retail and Small Medium Enterprise and Residential employees was launched.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Reinforcing best practices

Our cybersecurity operating model includes robust initiatives to heighten our vigilance and enhance our cybersecurity management. The following initiatives, among others, are testament to our commitment to placing a high priority on cybersecurity:

1. A cyber drill was conducted on 1 August 2023 involving 120 participants from TNB Power Generation, Grid, Distribution Network, Grid System Operator, Single Buyer, Security Services Department, ICT, Risk Management Department and Group Corporate Communication to enhance our crisis preparedness for and response to cybersecurity intrusion
2. Annual assessment of TNB key point installations for cybersecurity resiliency by *Jawatankuasa Pemeriksaan Keselamatan Sasaran Penting*, led by the Chief Government Security Officer of Malaysia
3. Enriching our cybersecurity situational awareness and knowledge of threats through up-to-date threat intelligence
4. Enhancement of cybersecurity risk assessment requirements for IT and OT systems
5. Collaboration with TNB business entities for proper classification of data into its rightful levels based on criticality and sensitivity
6. Publication of 22 Discover ICT newsletters in 2023 as well as onsite and virtual engagements to educate employees on cybersecurity risks and mitigations

OUR PERFORMANCE

No	Metric	Bursa Ind.	Unit	2021	2022	2023	Targets
Customer Experience and Satisfaction							
1	Number of substantiated complaints concerning breaches of customer privacy and loss of customer data	C8 (a)	Number	-	-	0	Zero complaints

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

MM 11

Employment Culture

TNB firmly believes that every individual deserves equal opportunities and a supportive work environment. At TNB, we actively promote a culture of respect, understanding and acceptance.

We strive to create an inclusive workplace where all employees can thrive and contribute their unique perspectives and talents. Reimagining Culture (RC) was established to define our core values and culture - Integrity, Collaboration, Professionalism, Customer-centricity, Forward Thinking and Mindfulness - that drive our business transformation along with the development of a high-performance culture. As part of embracing Mindfulness, we are respectful and compassionate to others and the environment while protecting the safety and promoting the well-being of our people and the public.

MANAGEMENT APPROACH

TNB is dedicated to fostering equal opportunities and a supportive work environment for every individual. We actively cultivate a culture of respect, understanding and acceptance, striving to create an inclusive workplace where all employees can thrive, bringing their unique perspectives and talents to the forefront.

TNB remains steadfast in adhering to all relevant labour laws, supporting the rights of freedom of association and collective bargaining as outlined in the Collective Agreement (CA). Both executive and non-executive employees' rights are safeguarded through our unions, ensuring improved working conditions. In 2023, we continued to engage and facilitate discussions to address employee concerns, enhance workplace culture, align with the company's direction and negotiate terms within the CA.

Trade Unions & Associations	Employee Group	No. of Engagement Session in 2023
M-Club	Senior Management	2
PEP & EOA	Executives	40
Non-execs	Non-Executives (Technical)	36
	Non-Executives (Non-Technical)	38

We place high importance on ensuring the safety of our employees and providing them with a safe working environment. This can be seen clearly through the improvement of our HSE performance in 2023, where we achieved our target of reducing our employee Lost Time Injury Frequency Rate (LTIFR) to <1.00, recording an LTIFR of 0.74 compared to 0.82 in 2022.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Diversity & Inclusion

The TNB Diversity & Inclusion policy, established in 2022, highlights our steadfast dedication to nurturing a diverse and inclusive work environment. We are committed to fostering a culture that values individuals irrespective of factors such as age, gender, race, religion, nationality, physical abilities, background or prior experiences. This commitment includes striving for a minimum of 30% female representation on our Board of Directors and promoting diversity among our senior management team. Our workforce comprises a mosaic of individuals with diverse backgrounds, talents and expertise, all strategically aligned with the company's objectives.

Moving forward, we are poised to introduce our comprehensive stance on labour rights. This initiative will employ a centralised and structured approach to safeguard the labour rights of our employees, emphasising key aspects such as diversity and inclusion, fair wages and benefits, upskilling and education, equitable treatment, safety and health, anti-corruption measures and a resolute stance against forced labour.

Succession Management

Our succession management is a systematic process designed to identify, select and develop talents, ensuring a seamless operation of critical roles within our company. As of the end of 2023, we had successfully cultivated 31 "ready now" successors out of the 34 identified critical positions. Notably, our newly appointed C-Suites and Senior General Managers were drawn from this pool of successors. This achievement was acknowledged when we clinched Gold (first place) in the Best Succession Planning Strategy category at the Employee Experience Awards 2023 Malaysia, affirming the effectiveness of our strategic approach to succession planning.

Capability Building

Employee Learning and Development Journey

In ensuring that our people are equipped with the right capabilities, we continue to invest in our people.

Our learning and development programmes are based on three (3) principles:

- **70%**
  knowledge from challenging experiences and assignments
- **20%**
  from developmental relationships
- **10%**
  from formal training and coursework

This empowers our employees to chart their competency development in alignment with the learning journey identified for their respective roles.

The effectiveness of the employees' learning journey is further monitored through annual assessment cycles to gauge their proficiency levels over time. Both the employees and management are given the platform to discuss and identify any further improvement areas, which are needed in supporting the energy transition agenda. Through this exercise, TNB achieved an Organisational Competency Index of 87.8% in 2023.

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

Professional Certification

The technical competencies of our workforce play a pivotal role in driving our business operations. Our employees actively pursue relevant professional and specialist certifications within their respective fields. Additionally, they are encouraged to stay abreast of up-to-date industry standards and advancements in technology, fostering a culture of continuous learning and staying at the forefront of our rapidly evolving industry.

Professional Certification Programme	2023	
	No. of Employees	Investment (RM)
i. Functional programmes, including: • Certificate in Risk Management • Certified Information Security Manager • Certified Environmental Professionals in Sewage Treatment Plant Operation	Functional: 369 pax	Functional: RM394k
ii. Technical programmes, including; • Certified Steam Engineers and Boilermen • Grid Authorisation Certification • Machine Lubricant Analyst (MLA) Level 1 • Certified Energy Auditor Training	Technical: 271 pax	Technical: RM242.5k
iii. Regulatory Certification programmes, including; • Cable Jointer Levels 1, 2 and 3 • Heavy Machine Operator • Chargeman Category A0 and A1 • Chargeman Category B0, B1 and B4 • EC competent engineer certification	429 pax	RM8.2mil

Extended Study Programmes

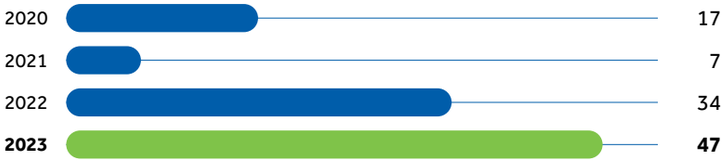
Our employees are provided with the opportunity to further their academic studies through our study sponsorship initiative, which includes support for both undergraduate and postgraduate programmes. Additionally, we offer an in-house Employee Academic Development Programme. From 2021 to 2023, a total of 220 TNB employees actively participated in these programmes, reflecting our commitment to their continuous learning and development. This initiative represents a substantial investment, totalling RM1.2 million.

In summary, we continue to invest in our workforce capabilities:

Workforce Capability

Total Investment (RM million)

Average Yearly Formal Training Hours per Employee (Hours)



Flexible Working Arrangements

In 2023, we were steadfast in implementing the Group-wide TNB Ways of Working (TWOW), empowering our employees to adopt a hybrid work model, seamlessly transitioning either working in the office, at home or home-based. This approach fosters a flexible work environment that prioritises inclusivity, acknowledging employees' individual needs without compromising productivity or business performance. Our implementation of TWOW is facilitated through digitalisation, particularly through the use of the People app, which earned us the prestigious Gold award (first place) in the Best Hybrid Work Model category at the Employee Experience Awards 2023 Malaysia. Additionally, the app plays a pivotal role in facilitating reporting on GHG Scope 3 emissions, specifically in Category 6 (Business Travel) and Category 7 (Employee Commuting).

Employee Engagement Assessment and Culture Barometer

The TNB employee engagement survey, conducted annually, aims to provide insights into our strengths and areas for improvement to enhance the overall employee experience, with a focus on our corporate culture. In 2023, an impressive 90% of our employees participated in the survey, resulting in a commendable score of 89%. This signifies a consistent upward trajectory since 2021, reaching the highest recorded score. Notably, this achievement matches the previous record highs attained in 2019 and 2020, prior to the challenges posed by the COVID-19 pandemic.

Year	Type of Engagement Survey	No. of Participants	Participation Rate (%)	Score (%)
2023	EES	31,245	90	89
2022	Culture Barometer	27,366	79	87
2021	EES	20,538	59	85
2020	Employee Pulse Survey	13,594	84	89
2019	Employee Pulse Survey	13,176	76	89
2018	EES	27,469	79	86

OUR PERFORMANCE

No	Metric	Unit	2021	2022	2023	Target
Labour Practices and Standards						
1	**C3(a) Percentage of employees by gender and age group, for each employee category**					
	By gender:					
	Senior management					
	Male	%	77	76	74	-
	Female	%	23	24	26	30% female by FY2025
	Executive					
	Male	%	60	60	59	
	Female	%	40	40	41	30% female by FY2025
	Non-executives					
	Male	%	85	85	85	
	Female	%	15	15	15	15% female by FY2025

SUSTAINABILITY DISCLOSURES ON MATERIAL MATTERS

	Metric	Unit	2021	2022	2023	Target
	Anti-Corruption					
	By age:					
	Senior management					
	< 35	%	0.0	0.0	0.0	-
	35-50	%	0.5	0.6	0.7	-
	> 50	%	0.7	0.6	0.7	-
	Executive					
	< 35	%	9.5	9.2	9.0	-
	35-50	%	13.6	14.3	14.9	-
	> 50	%	2.2	2.2	2.3	-
	Non-executive					
	< 35	%	30.9	27.4	23.5	-
	35-50	%	32.4	36.1	39.6	-
	> 50	%	10.1	9.6	9.4	-
2	**C3(b) Percentage of directors by gender and age group**					
	TNB Company					
	By gender:					
	Male	%	66.7	45.5	50.0	-
	Female	%	33.3	54.6	50.0	30% female
	By age group:					
	< 50	%	8.3	9.1	8.3	-
	50-60	%	58.3	54.6	33.3	-
	> 60	%	33.3	36.4	58.3	-
3	**C6(a) Total hours of training by employee category**					
	Senior management	hours	11,152	11,642	15,469	Total training hours >1.1 million hours
	Executive	hours	284,772	313,836	421,416	
	Non-executive	hours	413,866	792,874	907,736	
4	**C6(b) Percentage of employees that are contractors or temporary staff**	%	11.5	10.2	9.9	10% of employees that are contractors or temporary staff
5	**C6(c) Total number of employee turnover by employee category**	No.	1,314	1,363	1,142	-
	Senior management	No.	n/a	61	44	-
	Executive	No.	n/a	369	342	-
	Non-executive	No.	n/a	933	756	-
6	**C6(d) Number of substantiated complaints concerning human rights violations**	No.	0	0	0	Zero complaints
7	Employee Engagement Score (EES)/Culture Barometer	%	85	87	89	-
8	**Employee engagement**					
	Total investment in workforce capability					
	a) Total investment (RM)	RM million	65.53	161.4	189.6	-
	b) Average yearly formal training hours/employee	hours	7.0	34.0	47.08	-
	Employee Engagement Score (EES)/Culture Barometer	%	85	87	89	-

OUR RESPONSE TO CLIMATE CHANGE

TNB acknowledges our significant role in contributing to climate change, potential risks and opportunities for our infrastructure and business sustainability. Since 2019, we have adopted the Task Force on Climate-related Financial Disclosures (TCFD) framework that serves as a comprehensive approach for assessing and managing climate-related risks and opportunities, ensuring a thorough evaluation of the associated financial implications.

TCFD CORE ELEMENTS IN TNB

We govern climate-related matters by integrating them into the TNB corporate governance system, with oversight from the Board and management

We prioritise to ensureensuring business resiliency and continuous efforts in addressing climate change scenarios and exposures through our Reimagining TNB strategy and TNB Energy Transition Plan

We adopt the TNB Risk Management Framework, with continuous constant effort to address both transition and physical risks, and opportunities in the short-, medium- and long- term strategic risks across TNB business entities

We identify and set climate-related quantitative targets and monitor related metrics to ensure the realisation of the Net Zero by 2050 aspiration

GOVERNANCE

The TNB Sustainability Governance Structure governs climate-related matters.

For more information on sustainability governance, please refer to pages 58-59 of the Sustainability Statement.

STRATEGY

Our priority is to ensure that our business is resilient in addressing climate exposures in our business strategy with continuous assessment to adapt to transition and physical risks and opportunities in the short-, medium- and long-term.

RISK MANAGEMENT

We adopt the TNB Risk Management Framework to assess and mitigate transition and physical risks and opportunities across TNB business entities integrated into day-to-day operations.

Refer to the SORMIC report page 184-191.

Climate Resiliency

In reference to the Representative Concentrating Pathways (RCP) scenarios from the Intergovernmental Panel on Climate Change (IPCC) and scenarios proposed by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), the following are the risk exposures to our business:

Scenario	Description	Expected global temperature increase by 2100	Risk exposure to TNB Business	
			Physical	Transition
IPCC's RCP 8.5/4°C (high emission scenario)	The 'Business as usual' scenario suggests a likely outcome if society does not make concerted efforts to cut greenhouse gas emissions.	>4°C	High	High
IPCC's RCP 6.0/3°C (moderate emission scenario)	The scenario suggests a future in which greenhouse gas emissions continue to rise at a moderate rate but stabilised at in 2070.	2.6°C	Moderate	Moderate
NGFS' Nationally Determined Contributions (NDCs) scenario	The NDC scenario includes all pledged policies, even if not yet implemented, based on the trajectory associated with global NDC commitments to limit the impact of climate change.	2-3°C	Moderate	Moderate

OUR RESPONSE TO CLIMATE CHANGE

Scenario	Description	Expected global temperature increase by 2100	Risk exposure to TNB Business	
			Physical	Transition
NGFS' Net Zero 2050 scenario	An ambitious scenario that limits global warming to 1.5°C through stringent climate policies and innovation, reaching net zero CO_2 emissions around 2050.	1.5-2°C	Low	Low

Transition Risks and Opportunities

Our transition risk exposures are associated with transitioning to a low-carbon economy and achieving carbon neutrality by 2050, which is the nation's aspiration.

Type	No	Transition Risk	Short/Medium/ Long Term*	Potential Impact	Management Approach
Policy & Legal	**1**	**Carbon Price** Uncertainty about the government implementing carbon pricing as an instrument to capture the external cost of GHG emission	Medium term	Cost	Implement a decarbonisation strategy as per the TNB Energy Transition Plan Active engagement with regulatory bodies and government agencies on carbon pricing regulations *Refer to MM3 (Climate Change and Emission) on pages 72-76.*
	2	**Emissions Reporting Obligations** Increased expectations from regulatory bodies to track and publicly report emissions	Short term	Cost	Digitalise emission data and indicators Monitor and report emission metrics and performance for informed decisions Embark on greenhouse gas (GHG) scope 3 emissions measurement Active engagement with regulatory bodies to keep abreast of emission reporting requirements *Refer to MM3 (Climate Change and Emission) on pages 72-76.*
	3	**Litigation Exposure** Fines or judgments driven by environmental and climate activism	Short term	Cost	Implement environmental management strategy Active engagement with relevant stakeholders on TNB's environmental and climate management *Refer to MM6 (Environmental Management) on pages 82-86.*
Technology	**4**	**Low Carbon Technology** Uncertainty in the deployment of low-emission technology due to high investment and technology maturity	Short term	Capital Investment	Implement a decarbonisation strategy, leveraging digitalisation and technology innovation per the TNB Energy Transition Plan *Refer to MM2 (Energy Transition and Innovation) on pages 68-71.*
	5	**Talent Gaps** Talent gaps that require upskilling and reskilling to navigate new and emerging technologies	Short term	Cost	Implement a talent management programme customised to meet energy transition technology requirements *Refer to MM11 (Employment Culture) on pages 102-106.*

Type	No	Transition Risk	Short/Medium/ Long Term*	Potential Impact	Management Approach
Market	**6**	**Changes in the electricity supply industry** Changes in the Malaysian Electricity Supply Industry (MESI) such as policy, regulatory requirements and market demands, in line with the transition to a low-carbon economy	Medium term	Market Share	Active engagement with regulatory bodies to shape an equitable energy market Explore new opportunities in the energy market such as beyond kWh solutions *Refer to MM2 (Energy Transition and Innovation) on pages 68-71.*
	7	**Shift In Customer Behaviour** Changing customer behaviour and preference for low-carbon options	Short term	Revenue	Active engagement with customers to anticipate and meet expectations leveraging digitalisation Collaborate with regulators and stakeholders to enhance the rakyat's energy literacy *Refer to MM7 (Customer Experience and Satisfaction) on pages 87-89.*
	8	**Stranded Asset & Divestment** Unanticipated or premature write-down, devaluation and divestment of carbon-intensive assets	Medium term	Asset	Implement a decarbonisation strategy per the TNB Energy Transition Plan, such as repowering generators using green technology and early retirement of coal power plants Committed to no new coal power plants *Refer to MM2 (Energy Transition and Innovation) on pages 68-71.*
Reputation	**9**	**Adverse perception of TNB brand & image** Increased stakeholders' expectations and scrutiny of our ESG strategy, management, and performance	Short term	Share Price	Implement TNB Sustainability Strategy and Energy Transition Plan Active engagement with stakeholders to address ESG needs and expectations

* *Short-Term: until 2025 | Medium-Term: 2025 to 2035 | Long-Term: 2035-2050.*

Transition opportunities in the energy industry abound as we embark towards a low-carbon economy.

Type	No	Transition Opportunity	Short/Medium/ Long Term*	Potential Impact	Management Approach
Resource Efficiency	**1**	**Energy management at supply and demand side** Opportunities to reduce resources required to generate electricity and required energy efficiency solutions	Short term	Cost	Optimise asset performance and efficiency through technology and innovation Repowering of power plants using cleaner green technology Collaboration with the Energy Commission (EC) on the Malaysia Energy Literacy Programme *Refer to MM3 (Climate Change and Emission) on pages 72-76.*

OUR RESPONSE TO CLIMATE CHANGE

Type	No	Transition Risk	Short/Medium/ Long Term*	Potential Impact	Management Approach
Energy Source	**2**	**Renewable energy growth** Opportunities to increase RE portfolio locally and internationally	Short term	Revenue	Capture strong RE growth potential in domestic & international markets through subsidiaries, i.e., TNB Renewables, Spark Renewables and Vantage RE Adopt commercial capabilities in foreign markets to drive domestic RE growth *Refer to MM3 (Climate Change and Emission) on pages 72-76.*
Product and services	**3**	**Demand for low-carbon electricity and green energy solutions** Opportunities from increased demand for renewable energy, energy storage and electrification	Medium term	Revenue	Implement a decarbonisation strategy that includes green energy solutions across the electricity value chain as per the TNB Energy Transition Plan Implement identified energy transition projects in linealigned with the National Energy Transition Roadmap (NETR) Establishment of GSPARX and TNBX to provide beyond KWh solutions, e.g., solar rooftop with storage solution. Develop and enhance digital platforms such as myTNB apps, an EV charging platform, a digital marketplace, and green energy aggregation, and a trading platform, to complement ET initiatives Establishment of PMO EV to accelerate the EV adoption rate in Malaysia Strengthen TNB's brand presence in supporting EV proliferation Install EV chargers along highways, major trunk roads, and TNB premises, to encourage connectivity among EV users *Refer to MM2 (Energy Transition and Innovation) on pages 68-71.*
Markets	**4**	**Diversification of business activities** Opportunities to diversify business activities leveraging energy transition targets, green and emerging technology, digitalisation and strategic partnership	Medium term	Revenue	Embark on strategic partnerships for new technology such as hydrogen with PETRONAS, Ammonia co-firing with IHI Corporation and CCUS with PETRONAS Develop Green Hydrogen hub producing hydrogen for the industrial and power sectors *Refer to MM2 (Energy Transition and Innovation) on pages 68-71.*

* *Short-Term: until 2025 | Medium-Term: 2025 to 2035 | Long-Term: 2035-2050.*

Type	No	Transition Risk	Short/Medium/ Long Term*	Potential Impact	Management Approach
Resilience	**5**	**Flexible and reliable Grid** Opportunities for regulated assets due to the requirement for a flexible and reliable grid with the increase of renewable energy injection to the grid system	Short term	Capital Investment	Enhance grid system efficiency through SMART grid initiatives to facilitate bi-directional power flow from prosumers Pilot project for Virtual Power Plant (VPP) technology for peer-to-peer generation among energy prosumers and demand response control for system stability in the future *Refer to MM2 (Energy Transition and Innovation) on pages 68-71.*
	6	**ASEAN Power Grid Interconnection** Opportunities for grid interconnection projects with ASEAN countries towards a low-carbon economy in the region	Medium term	Revenue	MoU with ASEAN countries, e.g., Indonesia, Thailand and Singapore, to undertake collaborations on interconnection projects Feasibility studies for other cross-border electricity interconnection opportunities *Refer to MM2 (Energy Transition and Innovation) on pages 68-71.*

* *Short-Term: until 2025 | Medium-Term: 2025 to 2035 | Long-Term: 2035-2050.*

Physical Risk

We have assessed the physical climate risk exposure to our business operations linked to extreme weather patterns and increased global temperatures. These include event-driven acute risks and longer-term chronic shifts in climate patterns.

The recent physical climate risk assessment is based on a climate scenario modelling (IPCC RCP 8.5/4°C) for the three (3) different types of power generators (coal, gas & hydro) and substations selected given their locations within Peninsular Malaysia. The scenario modelling analysed climate-related failure and damage risks at the grid point of the asset sites chosen to identify the spatial distribution of the seven (7) physical climate risks. The summary outcome of the study is as follows:

		Risk Exposure			
Physical Risk	**Description**	**TNBJ**	**SPG**	**SJ Kenyir**	**100 substations**
Coastal inundation	Rising sea levels and higher incidence of extreme sea events	🔴	🔴	🟢	🟢
Extreme wind	Changes in wind regimes, sea surface temperature and wind speeds	🟢	🟢	🟢	🟢
Forest fire	Increased incidence of fire weather due to confluence of days with higher temperatures, high wind speeds and drier conditions	🟢	🟢	🟢	🟢
Riverine flooding	Increased frequency and intensity of rainfall changing the frequency and intensity of river flooding	🟢	🟢	🔴	🟡
Soil movement	Changes in rainfall patterns and drought	🟢	🟢	🔴	🟢
Surface water flooding	Increased frequency of extreme rainfall leading to floods	🟢	🔴	🟡	🟢
Heat (dry spells)	Extreme high temperatures, more frequent hot days and longer-lasting heatwaves	🔴	🔴	🔴	🟡

Legend: 🟢 Risk exposure is low 🟡 Risk exposure is moderate 🟠 Risk exposure is significant 🔴 Risk exposure is high

OUR RESPONSE TO CLIMATE CHANGE

Based on the physical risk assessment, risks related to flood, heat, dry spells, and coastal inundation present a higher risk exposure to TNB's assets. With the possibility of increased exposure and impact severity, we are committed to improving our adaptation plans:

Physical Risk	Short/Medium/ Long Term*	Adaptation Plan
Flood	Short term	An integrated catchment management policy, procedures, and guidelines to regulate power supply among the catchments during floods Flood drills are needed to improve standard operating procedures, better manage critical situations and safely restore the electricity supply Integrated Community-Based Disaster Management (ICBDM) programme Prompt shutdown of affected substations through early warning systems to avoid/prevent damages Installation of protective measures around the substations, such as flood walls, flood gates, flap gates and pumping systems to reduce the water level inside the substation area Raised heights of transmission towers
Heat (dry spells)	Short term	Explore alternative water sources (groundwater, treated saline water, and recycled brackish groundwater and municipal wastewater) as an addition to the existing water sources Increase water storage volumes to ensure ample water supply to thermal power plants Incorporate climate change factors into new site assessments and adopt new design standards considering projected increasing dry spell risks
Soil movement	Medium term	Assessment of soil integrity at high-risk areas following recent landslide incident at SJ Kenyir Slope strengthening mitigations to prevent surface runoffs
Coastal inundation	Medium term	Incorporate climate change factors into new site assessments and adopt new design standards considering projected increasing coastal inundation risks. Ensure proper design of cooling water intake from seawater

* *Short-Term: until 2025 | Medium-Term: 2025 to 2035 | Long-Term: 2035-2050.*

METRICS & TARGET

We identify and set climate-related quantitative targets and monitor related metrics to ensure the realisation of the Net Zero by 2050 aspiration.

Refer to MM3 (Climate Change and Emission) on pages 72-76.

PERFORMANCE TABLE

No.	Metric	Bursa Code	Unit	2021	2022	2023	Target 2024	Scope
Anti-Corruption								
1	**Percentage of employees who have received training on anti-corruption by employee category:**	C1 (a)	%	-	14,238 employees- Reported as No. of employees	74.48	100	TNB Group
	Senior Management		%	-	-	1.01		
	Executive		%	-	-	17.39		
	Non-Executive		%	-	-	56.09		
2	**Percentage of operations assessed for corruption-related risks**	C1 (b)	%	-	-	97	100	TNB Group
3	**Confirmed incidents of corruption and action taken**	C1 (c)	No.	5	1	5	Zero incidents of corruption	TNB Group
Community/Societies								
4	**Total amount invested in the community where the target beneficiaries are external to the listed issuer**	C2(a)	RM mill	39.57	12.20	99.04	1% of PAT	TNB Group
5	**Total number of beneficiaries of the investment in communities**	C2(b)	No. of beneficiaries	-	-	6,635	-	TNB Group
Diversity								
6	**Percentage of employees by gender and age group, for each employee category**							TNB Group
	By gender:							
	Senior management							
	Male	C3(a)	%	77	76	74	-	
	Female	C3(a)	%	23	24	26	30% female by FY2025.	
	Executive							
	Male	C3(a)	%	60	60	59	-	
	Female	C3(a)	%	40	40	41	30% female by FY2025.	
	Non-executives							
	Male	C3(a)	%	85	85	85	-	
	Female	C3(a)	%	15	15	15	15% female by FY2025.	
	By Age:							
	Senior management							
	< 35	C3(a)	%	0.00	0.0	0.0	Balance diversity across employee demographic	
	35-50	C3(a)	%	0.5	0.6	0.7		
	> 50	C3(a)	%	0.7	0.6	0.7		
	Executive							
	< 35	C3(a)	%	9.5	9.2	9.0	-	
	35-50	C3(a)	%	13.6	14.3	14.9		
	> 50	C3(a)	%	2.2	2.2	2.3		

PERFORMANCE TABLE

No.	Metric	Bursa Code	Unit	2021	2022	2023	Target 2024	Scope
Diversity (cont.)								
6	**Percentage of employees by gender and age group, for each employee category (cont.)**							TNB Group
	Non-executive							
	< 35	C3(a)	%	30.9	27.4	23.5	-	
	35-50	C3(a)	%	32.4	36.1	39.6		
	> 50	C3(a)	%	10.1	9.6	9.4		
7	**Percentage of directors by gender and age group**							
	By gender:							TNB Group
	Male	C3(b)	%	66.7	45.4	50.0	-	
	Female	C3(b)	%	33.3	54.55	50.0	30% female	
	By age group:							TNB Group
	< 50	C3(b)	%	8.3	9.1	8.3	Balance diversity across employee demographic	
	50-60	C3(b)	%	58.3	54.6	33.3		
	> 60	C3(b)	%	33.3	36.4	58.3		
Energy Management								
8	**Total energy consumption**	C4 (a)	GJ	840,944 MWh	863,463 MWh	442,044,404	Started in FY2023 as baseline	TNB Group
Health and safety								
9	**Number of work- related fatalities**	C5(a)	Number	8	2	4	Zero fatalities	TNB Group
	Employee			2	0	3		
	Contractors			6	2	1		
10	**Lost time incident rate**	C5(b)	Per million man-hours	1.03	0.82	0.74	<1.0	TNB Group
11	**Number of employees trained on health and safety standards**	C5(c)	number	5,943	18,986	14,014	20% increase in 2024 from 2023	TNB Group
Labour Practices and Standards								
12	**Total hours of training by employee category**	C6(a)	Hours	-	-	-	Total training hours >1.1 millions hours	TNB Group
	Senior management	C6(a)	Hours	11,152	11,642	15,469		
	Executive	C6(a)	Hours	284,772	313,836	421,416		
	Non-executive	C6(a)	Hours	413,866	792,874	907,736		
13	**Percentage of employees that are contractors or temporary staff**	C6(b)	%	11.5	10.2	9.9	10% employees that are contractors or temporary	TNB Group
14	**Total number of employee turnover by employee category**	C6(c)	Number	1,314	1,363	1,142	-	TNB Group
	Senior management	C6(c)	Number	-	61	44	-	
	Executive	C6(c)	Number	-	369	342		
	Non-executives	C6(c)	Number	-	933	756		
15	**Number of substantiated complaints concerning human rights violations**	C6(d)	Number	0	0	0	Zero Complaints	TNB Group

PERFORMANCE TABLE

No.	Metric	Bursa Code	Unit	2021	2022	2023	Target 2024	Scope
Supply Chain Management								
16	**Proportion of spending on local suppliers**	C7(a)	-				Percentage of spend on local suppliers: >35%	TNB Group
	% of spend on local suppliers	C7(a)	%	97.90	95.10	46.45		
	Total spend on local suppliers	C7(a)	RM bill	9.82	10.38	17.18		
Data Privacy & Security								
17	**Number of substantiated complaints concerning breaches of customer privacy and losses of customer data**	C8(a)	Number	-	-	0	Zero Complaints	TNB Group
Water								
18	**Total volume of water used**	C9(a)	MegaLitres	8,431	10,531	10,096	2% reduction for water used in buildings	TNB Group
Waste Management**								
19	**Total waste generated, and a breakdown of the following:**	C10(a)	Metric Tonnes	47,829	74,150	929,123	30% recycling rate of Hazardous Waste by 2025	TNB Group
	(i) total waste diverted from disposal	C10(a)(i)	Metric Tonnes	-	-	440,595		
	(ii)total waste directed to disposal	C10(a)(ii)	Metric Tonnes	-	-	488,528		
Emission Management**								
20	Scope 1 GHG Emissions	C11 (a)	mil tCO_2e	39.77	38.58	38.92	38.62 mil tCO_2e - 1% reduction from base year 2020.	TNB Company
21	Scope 2 GHG Emissions	C11 (b)	mil tCO_2e	0.28	0.32	0.39	0.218 mil tCO_2e - 1% reduction from base year 2020.	TNB Company
22	Scope 3 Category 6: Business Travel	C11 (c)	tCO_2e	-	-	36,853.49	Started in FY23 as baseline.	TNB Company
	Scope 3 Category 7: Employee Commuting	C11 (c)	tCO_2e	-	-	63,027.75	Started in FY23 as baseline.	

** *reporting of the 2 indicators (Waste Management and Emission Management) are applicable from FY ending 31st December 2024 and beyond.*